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ORIGINAL LECTURES.

SOME PERSONAL EXPERIENCES OF SURGERY IN TIME OF WAR.

A Lecture delivered, by invitation, at the Bellevue Hospital Medical College, N. Y., October 23, 1883.

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(Reported by Edward Develin, M.D.)

GENTLEMEN: When a short time ago your professor, Dr. Dennis, invited me to address a few remarks to his class, I asked him to excuse me, as I was not prepared with any subject-matter which could interest you. He got over that difficulty by choosing a subject for me. The responsibility, therefore, for my being here, and for anything which I may say to you, rests with him and not with me. The subject Dr. Dennis selected is the very large one of Gunshot Wounds. It would take many lectures to discuss so important a topic. He tells me, however, you would like to hear something about these injuries, and more especially my own personal experience.

Now, as a civilian surgeon, my experience of surgery in time of war is, of necessity, limited, and I cannot but think that it is much like "Carrying coals to Newcastle," as we say in England, to talk of gunshot wounds in a country where, perhaps, the largest experience of this kind exists. Your great civil war brought this knowledge to your surgeons, and the teachings of the war are embodied in the splendid volumes issued by the Surgeon-General—a record, which for magnificence, I may say, for completeness of illustration and of detail, possesses no equal in any country in the world. Only the other day I had an opportunity, under the guidance of your distinguished countryman, Dr. Billings, of examining some of the treasures of your Army Medical Museum, in Washington. The number of valuable specimens there contained is enough to stock half-a-dozen museums. Every form of gunshot injury, in every possible variety, is there, and it seems a presumption on my part to venture to talk on this subject at all.

Possibly, however, it may interest you a little if I tell you the story of the experience I have had of surgery in time of war, and I may tell it the more appropriately to an audience such as you are, because it is some account of the doings of the Anglo-American Ambulance during the war between France and Germany, about twelve years ago. I only repeat what others have said over and over again, that the best volunteer aid rendered during that disastrous struggle was rendered by the corps of this ambulance.

That distinguished surgeon, whose reputation is world-wide, and who is loved by all who know him, Dr. Marion Sims, was selected as our chief, and the rest of the staff, some sixteen in number, was composed equally of American and English surgeons. One bright afternoon in the end of August, we left Paris with our wagons and equipment to join the headquarters of Marshal McMahon; and with some trouble and adventure we reached, at last, Sedan, with the intention of pushing on further the next day. Sedan is an old fortified town on the river Meuse, near the Belgian frontier; the fortifications were erected after the fashion of the day, by the great French engineer Vauban; and when we reached the place, which was only a few miles from the scene of the contending armies, the only soldiers, or representatives of soldiers, in or about the town were a few peasants in blouses, keeping guard upon the ramparts and at the gates, armed only with old flint-locks; no regular troops anywhere—not a soldier in uniform. An old army doctor was the only medical man in the whole town, and he besought us to remain, telling us we should find plenty to do. But our orders were to push on, and we determined to try to get further forward, and to reach the front.

Instead of our doing so, the French army rapidly retreated, entered the town, and we found ourselves, without any effort on our part, in the very centre of the scene of the most eventful battle of the war, and assisting at what was to change, at a move, the map of Europe; for next morning, at early dawn, began the battle of Sedan, which was followed by the capture by the German forces of an army of two hundred thousand men, with an Emperor thrown in.

I shall never forget an incident which occurred on the night before, as we lay bivouacked at the railway station, waiting vainly for some train to carry us forward. In the middle of the night an engine, with a cattle truck attached, steamed into the station, and out of it stepped the man who was still Emperor of the French, accompanied only by two or three aides-de-camp. They walked silently to the nearest gate of the town, about three hundred yards away. I followed them. They battered at the gate and called upon the sentry to open. He was afraid, and would not. "Mais ouvrez donc, c'est l'Empereur," cried the aide-de-camp at the top of his voice in the dead silence of the night. The sentinel did not believe the story, and did not open, and at that gate the then ruler of the French was kept waiting for an hour before he could gain admission; it was a scene to awaken many a reflection. There was clearly no reason now for us to go elsewhere, and we also entered the town and installed ourselves in the empty barracks placed at our disposal, a building placed high upon the ramparts and well adapted for the purpose.

Next morning, and all day, the battle was being fought, and very soon the wounded came in to us in large numbers. For several days and nights we had operations going on continuously; all the first day we were under the direct fire of the German artillery. The shells were whizzing past us, and occasionally the splinters struck the building, but it was clear we were not being fired at, else we should have been "knocked into a cocked hat" in no time. Indeed, I met, a few years after, in Berlin, the German officer who commanded the batteries facing the hospital, and he told me he could see our red-cross flag flying, and tried to avoid injuring the building, supposing it to be a hospital. This officer is a son of the distinguished Surgeon von Langenbeck, who lost his other son in the charge of the Prussian Guards, at Gravelotte, where such heavy slaughter took place. We had four hundred beds, and these were soon filled; the corridors were filled with poor fellows badly injured, and they were also sitting on the staircases. In the town, every house was filled; the churches were filled; in all the country houses round about, the wretched wounded soldiers were to be found. There was ten times more, a hundred times more to be done, than our united efforts could accomplish. All that it was possible to accomplish under such circumstances, we endeavored, to

the best of our ability, to realize. Amputations, of course, we had to perform in large numbers; some few ligaturing of vessels, chiefly for secondary hemorrhage, and later on a considerable number of resections of the larger joints. It was in the days before the antiseptic method had revolutionized surgical treatment, and a most disheartening number of our operative cases and of more simple wounds, died from blood-poisoning. In the cases of ligature for hemorrhage, the bleeding too often recurred, and the resections in many instances, either ended in amputation or death.

Most of the resections of joints were in the so-termed secondary period. I agree with Langenbeck in thinking primary resections, though performed immediately after the injury, are unsatisfactory. The power of regeneration, the probability of procuring a useful limb or joint, are much less. In the secondary stage, the periosteum has become thick and vascular; it can be more readily detached from the bone, and its powers of ossific reproduction are enormously increased. Immediately after any injury, it is very difficult to detach and preserve it to any extent; it possesses very little power of forming new bone. Besides, there is in the secondary period a better delimitation of the injury; its extent is better known; some of the fragments have necrosed, others show vitality. Cases only fit for amputation have already been disposed of. In resections for gunshot injury of joints, we may lay down for certain the necessity for preserving the periosteum as a condition of success, and we may also affirm that these operations should not follow the formal rules for excision of joints, for in most instances we can save portions of the joint, and, whenever it is practicable, partial excisions are to be performed; they are less dangerous to life, and the functional results are better. I know of several cases in which very complete reproduction of the lost parts has followed, even where large portions of bone were removed.

The ankle-joint and the elbow-joint are the articulations most suitable for surgery of this kind, and after them the shoulder and the wrist. The hip and knee have been seldom successfully excised for gunshot wound. For these, conservative treatment is the only applicable method, viewing the great mortality after operative interference in these two articulations. Indeed, for the cases of penetrating wound of the knee-joint, Bergmann and Reyher have demonstrated, by their experience during the Turco-Russian War, that the method of antiseptic occlusion, healing under an antiseptic scab, with complete immobilization in plaster of Paris, is by far the most successful method of dealing with gunshot wound perforating this articulation. These results, published in Volkmann's Vorträge, are most surprising. If I remember rightly, nineteen out of twenty-one cases recovered not only with preservation of life and limb, but actually with free, and in some cases perfect, movement of the joint.

One case I should like to relate to you of recovery after severe injury, with a useful limb, from my own experience, a case which is, I think, almost unique.

Louis H. Aubin, a chasseur d'Afrique, was wounded by a shell explosion, which laid open both his shoulder- and elbow-joints. The veteran Hanoverian surgeon, Stromeyer, who probably saw more war surgery than any man of his time, told me he is prouder of the invention of his cushion than of any thing else he had done. The risk of any tight constriction in arm is very great. This cushion gives support without constriction, and permits a certain amount of mobility which is so desirable.

In this case, the advantages of the Stromeyer cushion were apparent, and it possesses equal advantages for all fractures of the arm; indeed, in forearm as well as after excision of shoulder- or elbow-joints. In the ankle not less surprising results have been obtained after excision. I may mention one I remember, a case of Langenbeck. A German officer of noble rank was shot through the ankle, and his tibia shattered and ankle-joint laid open. Langenbeck removed the bones forming the ankle-joint, the upper surfaces of the astragalus, three inches of the tibia, and a considerable part of the fibula; yet the reproduction of bone was so complete that the shape of the ankle was not in any degree lost, the malleoli were perfectly reformed, and the power of walking so good that some time afterwards this officer ascended the Monte Rosa, one of the highest peaks in the Swiss Alps, a feat which most persons who never received any injury to the ankle would find themselves unable to perform.

The after-treatment of injury to the ankle is of great importance. The foot must be supported in such a way that it shall remain at right angles to the leg, and neither become abducted nor adducted, everted nor inverted. A case otherwise successful may terminate in the patient possessing a useless foot if these points be not carefully seen after, and to realize this result the closest attention is required.

One thing I hope I have learned from my experience of gunshot injuries, and I should like to teach it to you. It is to do as little probing as possible; the first instinct of the patient is to inquire what has become of the ball, and surgical enthusiasm too often induces the surgeon to hunt after it. He probes the wound, introducing his finger into it, seeks with one forcep after another to pull out the missile, very often tugging at some piece of the unfortunate man's skeleton instead, and most certainly introducing much septic matter into his body, thus laying the true foundation of a dangerous septic suppuration. A joint that might otherwise have been preserved has, indeed, been often sacrificed. A gunshot fracture thus may be robbed of all chance of recovery, and loss of limb, or loss of life, has been the frequent result. A bullet in the body is, as a rule, I feel convinced, a harmless object when we contrast the mere fact of its presence with the incalculable damage which may be done by over-zealous attempts at seeking for it.

In the Army Medical Museum are many specimens which illustrate what I would like to enforce. A soldier was wounded in the knee and elbow; he thought a bullet was in the knee, but the surgeon who attended him, I cannot but think most fortunately, was of the contrary opinion. The man recovered, and was able to use the limb as before. On his death, years after, a ball was found imbedded immediately beneath the articular surface of the condyle, which it had entered after ripping up the front of the tibia, and, therefore, of course, penetrating the joint. In this position it had been imbedded without causing any irritation whatsoever. It may be said that this is a rare event, and so it is, but it teaches a lesson of wide application, and the application of this lesson has been subsequently made with most brilliant results in the case of this very joint, as I have already mentioned, by Professors Bergmann and Reyher.

The veteran surgeon Stromeyer, whose friendship I had the honor to enjoy, pointed another illustration of this fact in his method of treatment of gunshot fracture of the femur. He got better results than anyone else by avoiding all meddlesome interference, and especially by treating the fracture where the man fell or as near to it as might be. Cases recovered and did well in his hands, while similar ones were amputated and died in those of others. *Nur nicht schaden* is the text from which Esmarch preaches when speaking of gunshot injuries, and I think there can be little doubt of its importance.

Gunshot Fractures in General.—I would like for a moment to advert to those most interesting papers re-

cently published by my distinguished friend Dr. Marion Sims. He urges that we should not any longer permit persons with gunshot injury of the abdomen to be simply allowed to die, as has hitherto been the case, without making some effort to save them. He advises that the abdomen should be opened, the injured portion of intestine sought for, the wounded part cut out, the cavity then disinfected, and the external wound closed.

I hope that in some future case this may be attempted —why should it not? The abdominal cavity can be opened with comparatively little risk. Exploratory operations of this kind are done every day. Portions both of the small and the large intestine, large portions even, have been successfully excised, and the cut ends of the bowel sutured together. The pyloric end of the stomach has been excised, almost every abdominal viscus except the liver has been successfully removed. Tumors of the intestine and in the intestine have been successfully dealt with. Dr. Sims' proposal will doubtless one day be also successfully carried out. There are great difficulties certainly, the two principal being extravasation of blood and of fecal contents into the peritoneal cavity, and the possible perforation of several coils of intestine; but extravasation is by no means certain to occur in the comparatively small wound which a rifle-bullet causes. I remember I once sutured a ruptured bladder successfully after escape of urine into the abdomen had taken place, and I cannot help thinking cases of intestinal wound may arise which can also be successfully dealt with.

I have adverted to the fact that the military surgery of the Franco-German war was not practised with the advantages which antiseptic surgery affords. The mortality was very great. In my own hospital, pyæmia and erysipelas were scourges which blasted our best efforts. Since then, the greatest and most unceasing attention has been devoted to perfecting antiseptic methods for use in time of war. They were employed to a considerable extent in the Turco-Russian war, in which I had a vicarious interest in the person of many of my pupils who were present at the great battles of that war; and lately, during the short campaign in Egypt, our own military surgeons treated the wounded with complete antiseptic precautions. The expedition sent out to Egypt was supplied with the fullest and most complete equipment procurable of this kind. What were the results? I speak from memory as to number of wounded: they were, I think, 426, and amongst them many serious injuries and cases needing amputation. Yet this I know, on the most indisputable authority, that throughout this campaign not one single case of pyæmia, of erysipelas, or of any other infectious disease occurred. Not a single instance, in short, of blood-poisoning of any description took place after any gunshot wound during this war. Such a result is quite unprecedented in the history of military surgery in any part of the world.

I need not weary you with any account of the many varieties of antiseptic material recommended for use in time of war.

I believe there is an important future for iodoform. It is efficient, easy of application, and very portable. In cases where the occlusive method of treatment is desirable, in cases of wound of the thoracic cavity, in penetrating wounds of joints, iodoform may prove of especial value.

Gentlemen: What is Surgery? The work of a master hand. The surgeon of olden days was a mere χειρουργός. He was a tool which others used. But the surgeon of to-day is something far different, and the work he does is not only of his hand, but of his head, and of his heart, too. Surgery is a fight with death, in which the surgeon is often worsted; but never before in the history of surgery have greater advances been made, or greater victories been won. Never have the arms of the surgeon, literally as well as metaphorically, been so well appointed as they are now. People are apt to speak of conservative surgery as if it were something apart. All surgery is conservative in the truest and best sense. A surgeon who is not conservative is no surgeon at all. He who cuts off a mangled limb, or removes a malignant tumor, does so to save the patient's life. The term is misleading, and should be abandoned. Surgery is a vast field, and our best and most cultured intelligence is not too great to devote to the noble object of alleviating suffering, and directing to safe issue the casualties that may beset us in so many and various forms.

The surgical student should receive the best preliminary training the schools and colleges are able to impart. The future progress of surgery will best be promoted by increased breadth of culture, and increased general knowledge.

The field is vast, but the human mind seems capable of ever-increasing development. New triumphs of skill, a deeper insight into the causes of premature human destruction, yet more effective means of dealing with the many forms of suffering which it is our task to abate, await, without a question, the surgeon of the future, as they have more or less attended the surgeon of the present, and of his brother of former days. Presently, this duty will fall upon you. You can have none nobler or more worthy. May you all endeavor, to the best of your ability, to prove yourselves competent for the task.

One word more and I have done. I wish to say how much I appreciate the compliment of being asked to address you, however imperfectly I may have fulfilled my part of the undertaking, and to say also my best thanks for the patience with which you have listened to me. I am now on the point of returning to my own country, and I return, carrying with me the happiest recollections. I am not vain enough to suppose that the many compliments which have been paid to me, the lavish hospitality and great kindnesses I have received, are attributable to any personal merit of my own. I regard them as expressions on the part of a highly cultured portion of the American people of their love for the old country—for home, as in very many places I have heard it called. During eight weeks of almost constant travel I have heard but one feeling expressed, and I should like on this occasion, the most public opportunity I have had, to say how much this friendly feeling is reciprocated by those at home. I hope and believe that this sentiment will constantly grow stronger. There may be, there are, doubtless, disturbing elements. The growth of such a young giant as is America cannot be quite so even as that of an ordinary child, yet my firm conviction remains that the people of America and of England are in true and cordial sympathy with each other.

LOCOMOTOR ATAXIA.

A Course of Three Lectures delivered before the Cincinnati Medical Society.

BY PHILIP ZENNER, A.M., M.D.,
OF CINCINNATI, OHIO.

LECTURE III.

TREATMENT.

GENTLEMEN: Last year the subject of nerve-stretching in locomotor ataxia was very fully discussed before the Berlin Medical Society. That discussion, which, apparently, forever settled the question of the value of nerve-

stretching in this disease, brought prominently forward another important fact, that improvement of the symptoms in locomotor ataxia for a shorter or longer time is no infrequent occurrence. This fact, which had been long known, had not hitherto been sufficiently recognized by the profession. It should never be overlooked when trying to judge of the value of therapeutic measures in the individual case. Of equal importance, lest one be misled by apparent therapeutic results, is the establishing of a correct diagnosis. I can scarcely illustrate this statement better than by the mentioning of a case. A few months ago I was requested by a physician to examine a case of so-called cured locomotor ataxia, where a special value had been attributed to a given remedy. A careful examination revealed that the patient had had an attack of acute ataxia, such as occurs sometimes after infective diseases, diphtheria, etc., or without apparent cause, whose pathology is unknown, and which usually runs its course within a short time, generally terminating in recovery. How easily in such cases one might be deceived as to the value of remedial agents!

There has always been much scepticism as to the value of treatment in this disease. Leyden, in the latest systematic article on this subject, published in Eulenburg's *Real-Encyklopädie*, has unhesitatingly declared that locomotor ataxia cannot be cured; that it cannot even be held definitely in check. This sweeping statement I believe to be too strong, to be disproved by ascertained facts. Nevertheless, we learn from what was above stated that we can be very easily deceived as to the effects of remedial agents, and it is doubtless true that, as yet, the value of none of them has been positively determined.

Before speaking of the various therapeutic measures, of which I will only mention those having the greatest claims to the confidence of the profession, let us inquire, from a purely pathological standpoint, in how far we may speak of the curability of the disease, and of the manner of improvement. If we knew something of its proximate cause, why it originally attacks Burdach's columns, why the primary degeneration later occurs in the same columns in higher portions of the cord, we would be better able to state the probability of checking the disease in its beginning, or in its later stages. But, as it is, some clinical observations and pathological studies will at least enable us to say something of the possibility of a cure and the manner of improvement. Not very infrequently cases have been reported where all the symptoms of locomotor ataxia have been manifested and have later disappeared. Are we to believe that degenerated portions of the cord have been reproduced? I believe not, for experimental researches appear to show that destroyed portions of the cord are not, or at least very rarely, restored. Doubtless symptoms are often produced or increased by transient causes, local congestion, hyperæmia, or the like, and with the disappearance of the latter the symptoms improve or disappear. It is a common occurrence that patients entering a hospital, after lying in bed for a few weeks, improve very markedly, an improvement which can only be attributed to the cause just mentioned. But how is it if the symptoms are caused by destruction of nervous elements in the cord? Erb, in his work on diseases of the spinal cord, reported two cases of locomotor ataxia as about cured. One of these, in whom the usual symptoms, anæsthesia, ataxia, etc., had been manifested, and later disappeared, excepting a slight bladder trouble, after an apparent recovery of about eight years suddenly died of acute poisoning. An examination of the cord made at this time revealed the degenerative changes in Burdach's columns characteristic of this disease. So, in this case, the symptoms had disappeared, while the pathological changes, which probably produced them, remained. Here we must attribute the improvement to vicarious functions, certain nerve-fibres in the cord assuming the functions of those which had been destroyed.

In this sense, then, we may speak of the curability of the disease; that at times transient conditions, hyperæmia, etc., are removed, and the symptoms caused by them disappear; at other times the functions of destroyed portions of the cord are assumed by other nerve-fibres, and, therefore, again the symptoms disappear.

With these ideas of cure or improvement, let us proceed to the consideration of the various methods of treatment. First, a few words as regards general treatment. As exposure to cold may cause or aggravate the disease, the patient should be guarded against deleterious influences of this kind. If he be poorly nourished, cod-liver oil, good diet, etc., are indicated. As the disease often occurs in those of a nervous temperament, rest of body and mind is often called for. We should attempt to relieve him from mental worry or anxiety, forbid mental overwork, and often rest of body will be very beneficial. We have already mentioned that complete rest in bed is often followed by great improvement; but this cannot be always demanded. Exercise is often beneficial. But great muscular exertion should always be discouraged, and, at times, perhaps when the changes in the cord are more active than usual, complete rest will prove very serviceable.

The various symptoms may each demand special treatment, but we will here only refer to one of them, the severe pains. External applications, electricity, etc., may act beneficially; but, after all, our main reliance is opium. And we must here be especially guarded lest our patient contract the opium habit. Remembering that the pains are often not of very long duration, that they sometimes get milder, and even disappear in the later stages of the disease, we must use this powerful remedy as cautiously as possible during the periods of severest pains, and may thereby guard the patient from contracting a habit which would be even a greater calamity than the disease itself.

Of the therapeutic measures intended directly for their curative influence, I will first mention nitrate of silver. This remedy, first recommended by Wunderlich, has since been favorably spoken of by many physicians. A few cures have been reported, but far more frequently merely improvement. The medicine is usually administered in small doses, so that a grain or more is taken daily, and is continued for a number of weeks or months. Eulenburg has recently given this whole subject a careful examination, and asks why it is that, in a few cases, this remedy has acted so admirably, while in the great majority of cases it is entirely useless. He believes the answer to be found in the fact that the nitrate of silver is generally decomposed by the organic constituents with which it is administered, or with which it comes in contact in the alimentary tract or in the walls of the intestines. To overcome this difficulty, he has resorted to hypodermic injections. He uses a solution of albuminate of silver, or a solution of chloride of silver and sulphide of sodium. He states that these solutions are locally non-irritant; and that they are absorbed is proved by their later appearance in the urine. Whether this contribution will add to our success in treating this disease is yet to be determined.

A much-favored therapeutic measure is hydrotherapy, chiefly in the form of hot or cold baths. Baths of a temperature between 70° and 90° are usually given. The cold baths appear to have more frequently proved beneficial; the hot are supposed to be indicated where

there are very severe pains, but if not very cautiously used may do harm, as happened to a patient of my own this summer, who tried baths of a higher temperature and more frequently than I had counselled him to use.

We do not know exactly in what way baths prove of benefit. They increase tissue-metamorphosis, and thereby improve the general health. They also appear to harden the system, so that it can better resist deleterious influences, exposure to cold, etc. We can perhaps thus account partly for their beneficial influence. But they also cause an increase of the arterial tension, and perhaps cause local changes of circulation in internal organs, and, it may be, in this way exert their principal curative influence in this disease.

The use of baths is largely experimental. We cannot tell before trying them whether they will prove of value, or what temperature will be best. Generally, baths are taken every day, or every second day, and are of ten or fifteen minutes' duration. If beneficial, they may be continued for a number of weeks or months.

Baths are not the only form in which we can apply hydrotherapy. Hot or cold applications may be made directly to the spine in coils of rubber tubing made for the purpose, or sponge baths may be taken with much benefit.

The method of treatment which has gained the greatest confidence of the profession is the application of electricity. The constant current is most commonly applied. Meyer speaks very highly of applying the positive pole to painful points along the spine. But painful points are not often found, and the most common method is the application of both poles to the spine—one above, the other below—and either leaving them stationary, or moving one slowly up and down. The current may also be applied to the peripheral nerves. The duration of a sitting should usually be short, about five minutes, and only a moderate strength of current used. The current should be applied daily, and for a number of weeks or months. Like hydrotherapy, this treatment is experimental; we cannot tell before trying it whether it will prove beneficial or not.

Rumpf has recently spoken very highly of the value of the electric brush. Influenced by the knowledge that the application of the same had restored lost tactile sensation in hysteria and other conditions, and had even improved motor symptoms, he tried it in this disease, and obtained results even exceeding his expectations. Several cases, with the usual symptoms of locomotor ataxia, appear to have been almost cured, though the lapse of time is too short to say whether this improvement is more than temporary. He applies one electrode to an indifferent part of the body, as the sternum, while the brush is applied over the spine and limbs. The duration of a sitting is ten minutes; the strength of current moderate.

He believes this will prove most serviceable where the sensory symptoms, pain, anæsthesia, etc., predominate. Yet, inasmuch as experiments of his own and others have demonstrated that applications to the surface may cause local changes of circulation in internal organs, it may be that this measure exerts a direct curative influence on this disease.

I have tried this method of treatment in two cases. One, living in a distant city, passed from under my observation too early to observe any effect. In the other there was at least some improvement.

These various methods of treatment may be tried at the same or at different periods of time. A course of hydrotherapy in summer, and of electrical applications in winter, and nitrate of silver or other internal remedies administered at the same time, might be advisable. As the disease is a chronic one, so must the treatment be long continued. The same plan, if apparently beneficial, may be tried for several years. But in old cases, where treatment has proved unavailable, the conscientious physician will advise the patient to abstain from further therapeutical measures, and thereby, at least, spare him useless expense.

Before closing with the subject of treatment, we must approach a question which has been largely discussed in the medical world, that is, whether locomotor ataxia is usually of syphilitic origin. This idea, first brought prominently forward by Vulpian and Fournier, has since found adherents in most parts of the world. It is based upon the observation that in many of those suffering with locomotor ataxia a previous syphilitic history could be obtained. Fournier, in his latest publication, states that he has succeeded in obtaining a history of syphilis in more than ninety-one per cent. of his cases. Erb, in his most recent publication, announces that he has succeeded in obtaining a previous specific history in 91 of 100 cases of locomotor ataxia. To prove the direct relationship of the two diseases, he contrasts the above table with another of 1200 consecutive cases, adults, who did not have locomotor ataxia, and did not come to him directly for syphilis. Of these 1200, only 22.75 per cent. gave a previous specific history. Erb concludes from his observations that not only is there a direct relationship of these two diseases, but also that one, not previously infected with syphilis, scarcely has a chance of becoming afflicted with locomotor ataxia.

It is a further question whether the specific disease directly attacks the cord, or whether, through the constitutional taint, the cord merely becomes more susceptible to disease. The former opinion is generally held, and, in partial confirmation of it, it is mentioned that other diseases, as diphtheria, may cause diseases of the posterior columns, and even some poisons, as ergot, directly attack the same limited parts.

I do not wish to enter into a discussion of the question of the syphilitic origin of this disease, nor to give all the arguments, the various statistical tables, and other considerations on the one side, the contradictory statistics, the pathological changes, the non-success of anti-syphilitic treatment, the occurrence of locomotor ataxia chiefly in men, etc., on the other. For I believe a conscientious study of all that has been brought to bear on the subject can lead us but to this conclusion, that the statement, locomotor ataxia is usually of syphilitic origin, has not yet been proven; that this statement cannot be positively denied. I make this statement thus broadly, because I believe this state of doubt should be fully recognized, as it imposes certain duties upon us.

According to observations hitherto the spinal disease generally begins from five to ten years after the primary syphilitic infection. The syphilitic manifestations appear generally to have been mild, and to have been very slightly treated. The duties apparently imposed on us by these observations are, first, that every case of syphilis should be carefully treated, and for a long duration of time, however mild its manifestations. This is doubtless true whether or not the above relationship of disease exist; secondly, whenever one, formerly infected with syphilis, presents the earlier manifestations of locomotor ataxia, lightning pains, ocular paralyses, etc., he should be put upon a careful and persistent anti-syphilitic treatment.

There is even some encouragement to hope that in the fully developed disease the same treatment may prove beneficial. A number of such cases have been reported, and Rumpf, in the article already mentioned, states that in some cases where there was a previous history of syphilis, he has succeeded, by the combined

action of the electric brush and anti-syphilitic remedies, in obtaining flattering results.

But it will probably always appear that far less is to be obtained from such treatment after the disease is once developed than at earlier periods. The future will doubtless prove that in this disease, as in many others, prophylaxis rather than treatment is the highest duty of the physician.

ORIGINAL ARTICLES.

THE TREATMENT OF PSORIASIS.

BY ARTHUR VAN HARLINGEN, M.D.

(*Read before the Philadelphia County Medical Society, October 17, 1883.*)

PSORIASIS is one of the commoner skin diseases met with in this country. The statistics of the American Dermatological Association show that it occurs in the proportion of about six per cent. in all diseases of the skin encountered. Daily experience would seem to indicate a still more frequent occurrence, because the affection is a disfiguring and annoying one, and therefore patients are more inclined to seek relief, and also because it is a stubborn disease and greatly prone to relapse. The history of a single case will often extend over many years, and bring it under the observation of a number of different physicians.

It is because of the comparative frequency with which psoriasis is met and its stubbornness to treatment that I have selected it as the subject of my remarks this evening. Having had a good deal of experience in the treatment of the commoner forms of the disease, it is my intention to confine myself chiefly to the consideration of such remedies as have come under my own observation and use, only touching incidentally on others.

The object of treatment in psoriasis is the removal of the eruption as it exists upon the skin. We cannot hope with any degree of certainty in any given case to prevent a recurrence of the disease, or, if you please, a relapse. For the drug has not yet been discovered which will surely take away all tendency to the recurrence of psoriasis, and whoever promises a cure, in the wider sense of the word, to his patient, will, in a very great number of cases, find that he has been too sanguine. Fortunately, however, a certain number of patients do seem to recover. I do not know what has been the experience of others in this respect, but I have patients who have been under observation three, five, even eight and ten years without relapse. Such cases are, unfortunately, few.

Preëminent among the internal remedies which are useful in the treatment of psoriasis, is arsenic, which may justly be called a specific in this disease. I think I am not asserting too much when I say that eight out of ten cases of psoriasis of average character and severity will do better under the use of arsenic than with any other remedy. I prefer Fowler's solution, given in the average dose of four minims thrice daily. I think this solution is often prescribed in too large doses, and I am sure the dose of five to ten minims, as given in the books, is too large for ordinary use. Most patients bear a four-minim dose very well, but there are idiosyncrasies. I have sometimes been obliged to limit the dose at the beginning to one minim in cases where subsequently such toleration has been established that twelve minims have been taken with impunity. However, four minims is a good dose to begin with, and if the effect does not begin to show itself within ten days or two weeks, the amount may be gradually increased. Fowler's solution should never be given to the patient in a vial with directions to drop out the requisite number of drops. The patient is apt to make a mistake, vials of different sizes may pour out more or less in each drop, and there is always danger in leaving a half-empty vial of poison about the house. The solution is better given mixed with water, or with wine of iron or other convenient vehicle.

The effect produced by arsenic upon the eruption of psoriasis is, first, a diminution of the quantity of epidermic scales thrown off, and then in preventing the appearance of new lesions. The patches gradually lose their scaliness, begin to heal in the middle, and disappear little by little. It must be remembered, however, that arsenic is a slowly acting remedy, and its use should be continued through many months to get the best security against relapse.

The other liquid preparations of arsenic used in psoriasis are Pearson's solution of the arseniate of sodium, and Donovan's solution of the iodide of mercury and arsenic. I have used the former in a few cases without noticing any perceptible difference as regards efficiency between it and Fowler's solution. The solution of mercury and arsenic (Donovan's) I have employed, with good effect, in certain stubborn cases where Fowler's solution has seemed to fail. The existence of syphilis as the cause of the eruption in these cases having been excluded, I am at a loss to account for the apparently greater efficacy of the mixed treatment. The dose given was as much as ten drops, and although this solution is weaker in arsenic than Fowler's, yet I am inclined to the opinion that the conjoint administration of the two drugs, mercury and arsenic, was the cause of the good result, rather than the increased dose. I should be inclined to use Donovan's solution in cases where Fowler's solution had failed.

The mixture of arsenious acid, black pepper, and sugar of milk, known as Asiatic powder, and recently placed in the Pharmacopœia, with the pepper left out, among the triturations, is of no particular value above the other preparations, and is not so convenient of administration.

Hypodermic injections of solutions of arsenic have been employed in the treatment of psoriasis, but I have had no experience in their use.

Next in value to arsenic in the treatment of psoriasis is iron. I commonly employ the tincture of iron in cases where arsenic does not seem indicated. There is one type of psoriasis which includes robust, rosy, well-nourished individuals, "the very picture of health." Such people have never been sick a day in their lives, or perhaps may have had slight

attacks of articular rheumatism. Such patients do well under arsenic.

But there is another type in which the individual is thin, poorly nourished, and perhaps somewhat anæmic. These are the cases which do well under iron, which is best administered in the form of the tincture of the chloride. With these two remedies, arsenic and iron, I usually succeed in curing ordinary cases of psoriasis, adding in rare cases cod-liver oil to the use of the tincture of iron when debility is present. Of course, local applications are employed at the same time. Of these I shall speak presently.

In addition to the internal remedies mentioned, quite a host of others have been employed from time to time. Such are tar, carbolic acid, copaiba, phosphorus, tincture of cantharides, tincture of maize, carbonate of ammonia, acetate of potassium and other diuretics; the alkalies, as liquor potassæ and the alkaline mineral waters. Of these I have found alkalies and diuretics useful in cases when a markedly inflammatory condition of the skin has existed. The other remedies I have not employed, nor do I think the reports of their usefulness based on a sufficient number of facts, except in the case of tar possibly, to make it worth while to try them.

Equally important with the internal treatment of psoriasis is the external management of the disease. It is, of course, desirable to remove the eruption as soon as possible wherever it may be situated; but when it is found upon the face, there is every reason to endeavor its cure by all means and in the shortest time. External and internal treatment should therefore be combined when practicable. The first thing to do is to remove the scales. This may be done by means of local or general baths, wet dressings, etc., or by inunctions with fats and oils, by the use of soap, or by the action of impermeable dressings of India-rubber or oil silk. When only a few lesions are to be acted upon, a solution of salicylic acid in alcohol, 1 part to 16, well rubbed in with a sponge, will remove the scales very nicely.

The scales having been removed, the next thing is to apply such substances to the diseased patches as may most quickly modify the abnormal condition of the skin, and bring it back again to a healthy condition.

An innumerable number of applications have been recommended for this purpose, the most of which I shall pass over with only a mention. Such have been soaps and alkalies, citric and hydrochloric acids, sulphur, iodine and mercury, alone and in combination, together with the various forms and preparations of tar, creasote and carbolic acid.

All of these remedies have their uses, and most of them, especially the tarry preparations, I have employed time and again in years gone by, and with moderate satisfaction. The introduction, however, of chrysarobin or chrysophanic acid, some six or seven years ago, put quite a new face on the local treatment of psoriasis; and since then, with the aid of this and other later discoveries, we are able to work a much more rapid change in the appearance and condition of the skin in this disease.

As chrysarobin is perfectly well known to all here present, both as to its advantages and defects, I shall say but little about it in the ordinary form of its application—namely, as an ointment. When it first came out, I tried it quite extensively, but its disadvantages seemed so great that I had already begun to restrict its use greatly in my practice, when a new agent appeared, which, for every-day use, has in my hands, until very recently, almost entirely superseded all other local applications. I refer to pyrogallic acid.

I do not think pyrogallic acid is by any means so well known as an application for the relief of psoriasis as is chrysarobin. If I may judge by the infrequency with which its virtues are mentioned in the journals (although I believe all recent text-books speak of it), it is not in general use. But it is, in my opinion, one of the very best remedies we have for the cure of cases of psoriasis of average severity. Employed in the form of ointment, of the strength of one-half to one drachm of the pyrogallic acid to one ounce of simple ointment, the effect produced by it is almost as rapid and decided as that brought about by chrysarobin, without the accompanying discoloration. A slight blackish staining is all that is produced, and the ointment can even be employed in the scalp without markedly discoloring the hair, if applied cautiously. It is desirable, however, not to apply soap or alkalies at the same time, because this causes a more permanent and deeper stain.

Pyrogallic acid cannot be used in extensively generalized psoriasis, when large surfaces are affected by the disease, without a certain amount of danger from absorption, as indicated by strangury and olive-green or tar-colored urinary secretions. With care, however, and the occasional suspension of the remedy for short periods, I believe this remedy could be employed even in universal psoriasis with good effect.

One more external application in psoriasis remains to be spoken of—namely, naphthol. This drug, a derivative of coal-tar, was introduced into use several years ago by Kaposi, of Vienna, as a sort of substitute for carbolic acid. He recommends it very highly in psoriasis, in the form of ointment, about eighty grains to the ounce, and I have used it in this and other strengths, and also in solutions in alcohol and oil, with fairly good effect.[1]

Naphthol is not so active in its effect as chrysarobin or pyrogallic acid, but it is much more agreeable, and is, I think, peculiarly well adapted for employment upon such parts as are exposed to the view, as the face and hands. Like pyrogallic acid, it must be used with caution over large surfaces, as absorption, with toxic effects, may be produced.

It remains to mention briefly two or three methods of application of those remedies which have recently been brought forward. The first of these is the

[1] In a communication read before the American Dermatological Association, last month, and published in the AMERICAN JOURNAL OF THE MEDICAL SCIENCES for October, I have given the results of my experience in the use of naphthol in various diseases of the skin, psoriasis among the number. I may refer to that paper for further details as to the action of the drug in this disease.

treatment by medicated gelatine which was introduced by Prof. Pick, the well-known dermatologist of Prague. My attention was first drawn to this by a pamphlet which Prof. Pick kindly sent me, in which he gave an account of his earlier experiments with medicated gelatines, but I have not as yet had an opportunity of testing this method of medication as I should desire. I may say, however, that the method does not seem to me calculated to prove convenient and popular in private practice. I had for some time been making some experiments in my service at the Polyclinic in the preparation of gelatines impregnated with chrysarobin and pyrogallic acid, but without much satisfaction, when Dr. Chas. L. Mitchell, the well-known pharmaceutist of this city, sent me some excellent preparations of his own, which seem to be perfectly adapted to the purpose for which they are intended. A bit of one of these gelatine sticks is cut off and placed in a water-bath, where it soon melts into a clear homogeneous fluid, which may then be applied to the lesions of the skin by means of a paint-brush. The advantages claimed are cleanliness and transparency. The coating of gelatine does not rub off on the clothes, and is therefore not so dirty as an unctuous application. A fresh coating can be painted on every day or two as the old layer wears off. The chief disadvantage of this method of treatment is that it requires apparatus which is not convenient to carry about, nor can the patient be trusted to employ it at his discretion. My own experience is that, in psoriasis at least, the gelatine applications are not active enough. I have not, however, used them with sufficient frequency to pronounce a positive opinion.

Recently a solution of chrysarobin in collodion has been recommended in the treatment of psoriasis by Dr. George H. Fox, of New York, and several dermatologists have confirmed his statements with regard to its efficacy. I have employed this preparation in one or two instances, but it has seemed to me so much less active than the chrysarobin ointment that I have not been encouraged to continue its use. It has one great advantage over the gelatine applications, however, and that is that it can be applied extemporaneously and without the paraphernalia which must accompany the use of the gelatine.

A few weeks since, a pamphlet by Prof. Auspitz, of Vienna, reached me, in which that distinguished dermatologist recommended liquor gutta-perchæ as a vehicle for the application of chrysarobin. I at once obtained a ten per cent. solution, or rather emulsion, of chrysarobin in liquor gutta-perchæ, and happening to have a case of psoriasis of the face and scalp under treatment, I gave some to the patient to apply once daily. The effect was so happy as to encourage me very much to hope that we have in this preparation the most convenient method of applying chrysarobin yet devised; and as chrysarobin is, after all, the most efficient local agent in the treatment of psoriasis as yet brought forward, I have no hesitation in urging the trial of this preparation on any one who may have a case of psoriasis under treatment. It is to be noted, however, that the same watch must be kept upon the skin for fear of exciting dermatitis as when the ointment is used. When the liquor gutta-perchæ dries, which it does very quickly, there is little or no danger of rubbing the chrysarobin over the good skin, nor is there much danger, if any, of staining the clothing.

RAILROAD INJURY.

RUPTURE OF THE ABDOMEN, WITH LACERATION OF THE NECK OF THE BLADDER AND PROSTATIC PORTION OF THE URETHRA; FRACTURE OF THE PELVIS; OCCLUSION OF THE EXTERNAL ILIAC ARTERY; AMPUTATION OF THIGH ON TENTH DAY; DEATH IN THIRTY-FIVE DAYS.

BY I. S. STONE, M.D.,
OF LINCOLN, VA.

F. N., male, æt. 21, was caught between the couplers (drawheads) of freight cars on August 9. The writer witnessed the accident. The patient was saved from instantly being cut in twain by the cars not entirely closing together. Patient at once became pallid and nearly pulseless. Large quantities of ammonia and brandy were administered, and by enforcement of the prone position the patient was probably saved from speedy death. Examination revealed a wound extending from the median line, at the root of the penis, over the pubic bone, horizontally to the left five inches, opening the abdominal cavity, by pressure of Poupart's ligament with muscular attachments, backward toward the sacrum. The intestines were fully examined through the wound, and as no rupture was discovered, the wound was dressed and closed temporarily. The patient was treated for shock in the usual manner.

As three hours had elapsed since the patient had passed urine, the catheter was introduced for diagnostic purposes, but no urine was found. A small quantity of blood was discharged. It was then discovered that urine was discharging from the wound, which continued for twenty-seven hours, when a half pint was found in the bladder. After this time, a flexible catheter was retained in the bladder until the fifth day. The abdominal wound was thoroughly cleansed of urine, and solution of carbolic acid in glycerine and water used as an injection down to the base of the bladder. The wound was then closed permanently, and soon healed.

Large quantities of morphia were required for the first forty-eight hours, to control the pain in the nerves of both legs. Sensation was entirely absent in left leg from knee to toes. The external iliac artery was occluded, the circulation having entirely ceased throughout. Traumatic fever set in after recovery from shock.

On the 14th, the fifth day, the catheter was removed, and during the day a half pint of urine was passed normally. After this time, the patient continued to pass urine without the help of the catheter. The bowels were moved naturally on the sixth day.

Eight days after the accident, the left leg gave signs of gangrene below the knee. The temperature in the mean time was 100° to 104° F. On the ninth day, a severe rigor, lasting an hour, occurred. Temperature 106.3°; pulse 120. Amputation was decided upon as the only resort.

On the tenth day, the thigh was amputated in middle third, using carbolic spray and the usual antiseptic care. The collateral circulation had become established, and the stump healed rapidly. The abdominal wound also improved. Peritonitis was only slightly developed. Two weeks after the accident, a pus cavity was discovered at the base of the bladder, which was thoroughly drained with the catheter by aspiration, and washed out with a solution of potash permanganate. This treatment was continued every twelve hours. The prostate gland was very nearly absorbed.

Three weeks after the injury, the patient continued to suffer from high temperature and pulse; the former 101° to 105° F., the latter 110 to 120. Slight rigors.

For four weeks the patient was in constant stupor, except when aroused. A large abscess opened on the back, at the junction of the posterior-superior spinous process of the ilium with the sacrum, extending to and around the acetabulum, and through the sacro-sciatic foramen.

After five weeks of persistent sustaining and stimulating treatment, the patient finally succumbed to septicæmia.

An average of one gill of strong beef-tea was taken every three hours during the five weeks. Large quantities of milk, with "Mellin's food," were also given. Beef peptonoids and pepsin and dilute muriatic acid were given with domestic beef-tea when the stomach gave signs of weakening. It has never been my experience to see such large quantities of food given and assimilated under such circumstances. Quinine was freely given, and after the first rigor, the patient did not suffer from them severely.

Autopsy.—The symphysis pubis was disarticulated; the peritoneum was free from inflammation, save over the right kidney. Both kidneys were congested. Liver, stomach, and intestines were healthy. An abscess was found in front of and to the left side of the bladder and rectum, capable of holding nearly a pint of fluid, and connecting with the abscess outside of the pelvis. The prostate gland was absent. The rupture extended through the prostate and the neck of the bladder. The left external iliac artery and vein were closed. A large quantity of pus was found along the course of the vein (femoral), extending down into the stump about seven inches. The stump was nearly healed in spite of the adynamic condition of the patient.

The noteworthy features of the case may be summarized as follows:

1. That the patient rallied from shock.
2. That peritonitis did not follow and cause death during the first week.
3. That the amputation was successful (mixture of ether and chloroform, 2 to 1, was used).
4. That large suppurating surfaces did not cause death at an earlier period.
5. That the digestive organs continued in such healthy condition.

In conclusion, I must acknowledge the invaluable services of my friend, Dr. Townsend Heaton, of Hamilton, Va., who kindly assisted me in the case, and to whom I shall always remain indebted for his hearty coöperation and sympathy.

NOTES ON FISHBERRIES (COCCULI INDICI), AND A UNIQUE CASE OF FATAL POISONING THEREFROM.

BY THOS. S. SOZINSKEY, M.D.,
OF PHILADELPHIA.

THE *Anamirta cocculus*, a climbing shrub, indigenous to India and Ceylon, is the source of the *cocculus Indicus*, or *Indian scarlet berry*, or *bacca Orientalis*, or *Eastern berry*, or *fishberry*—the last the vulgar name of it. The names given to this fruit are deserving of a little study. *Cocculus Indicus*, *bacca Orientalis*, and *fishberry* are each open to criticism, because it is not a berry at all. The German name, *fischkorn*, plural *fischkörner* (spelled *fischkkörner* in *The National Dispensatory*—a typographical error)—or *fish-grains*, is too indefinite; and although not open to this objection, the French name, *coque du Levant* or *Levant shell*, mistranslated *Levant nut* by some, is also wrong. It is not a *berry*, nor is it a *nut;* and it is certainly more than a *shell*. This fruit is really, like the *butternut*, what botanists call a *tryma*, which is a dryish form of *drupe*, of which the *plum* and *peach* are examples. I may further say that *cocculus Indicus*, the singular, is generally used when the plural is proper, and that the name *fishberry*, so called from its use to destroy fish, the one by which it is known by the public, is not given in most of the books, so that the medical graduate may be utterly at a loss to know what the old woman around the corner is talking about when dilating on its value, if it be properly applied to Johnny's head or to the bedstead.

It is beyond my purpose to give a description of the cocculus Indicus and its properties and uses; but a few words thereon may be in place. Each is somewhat kidney-shaped, rough, blackish, and about a third of an inch in diameter. When split in two, in the line of its greatest diameter, the kernel is seen to be markedly crescentic in form; hence the name of the order of plants *Menispermaceæ* (from the Gr. *mene*, moon, and *sperma*, seed), to which the *anamirta* belongs. The active principle *picrotoxine* (from the Gr. *pikros*, bitter, and the L. *toxicum*, poison, literally *bitter poison*) was obtained from it as early as 1819. Another principle, named *menispermine*, has been obtained from the epicarp. Both are extremely powerful in their effects. A twentieth of a grain of picrotoxine is sufficient to kill a rabbit weighing three pounds. The dose is about one-eightieth of a grain. Of a tincture made from the fruit, in the proportion of one to eight, the dose would be about five minims, but no such preparation is in use, picrotoxine being preferable.

Cocculus Indicus is a good deal used as a parasiticide. Some medical men, and among them Prof. Gross, have a partiality for it as a remedy for pediculi. It is one of the best of the cures for ringworm in all its forms. As four hundred pounds or so are imported yearly, it must have many patrons; but some of it may be used in beer, which, it is said, is sometimes done by the unscrupulous, it having the property of imparting the desired fulness and apparent richness as well as bitterness to that beverage when malt and hops have been sparingly used in its production. The remedial properties of picrotoxine have not yet been sufficiently investigated and popularized. Admirable effects attend its use against night-sweating in phthisical and other cases.[1]

Cocculus Indicus, or rather the active principle, picrotoxine, is possessed of properties somewhat similar to those of strychina. As said recently by a learned authority—Prof. Stillé[2]—when it is administered to animals, it causes "dulness, muscular tremors, and convulsions and tonic spasms by turns, the body being strongly bent in opisthotonos." Unlike strychnia, it produces gastro-intestinal disturbance, and the spasms are apt to be clonic. Its power is exerted chiefly on the motor-spinal centres. Recent experiments have been made by Professors Chirone and Testa, of the University of Padua. These investigators found that picrotoxine may determine true epileptic attacks, even to the cry. There is loss of consciousness; the animal falls; there are abundant salivation, tonic and clonic convulsions, loss of urine, convulsive rolling of the eyeballs, and the action of the lungs and heart is arrested. The convulsions are of spinal and bulbar origin, and are more intense after the removal of the higher centres.[3]

In regard to its effects on the human subject, Prof. Stillé says: "There is no case on record in which cocculus Indicus, or picrotoxine, has produced in man such spasmodic phenomena as have just been described. Its chief effects in excessive doses appear to be slight giddiness and lightness of the head, and partial loss of power in the lower limbs. In one case only have symptoms of active poisoning by cocculus been described. Among them were gastro-intestinal irritation, congestion of the brain, strabismus, sweating, exhaustion, and death. The absence of any spasmodic phenomena throws doubt upon the alleged nature of the attack."

The rather remarkable fact that no case of fatal poisoning from cocculus Indicus or its active principle, picrotoxine, is recorded renders of interest the report which follows of what I observed in a case of the kind which recently fell into my hands:

B. McV., aged thirty-nine years, a man of medium strength, drank by mistake several ounces of whiskey in which a handful of fishberries had long been steeping, the preparation being intended for the destruction of bedbugs. I saw him a little less than an hour afterwards. He had vomited once before I reached him, but there was no recurrence of it, although mustard and salt and alum were given to cause it. I found him totally unconscious, a condition in which he remained to the end, and powerful general convulsions were following one another every five minutes or so, each lasting about two minutes. Between the convulsions there was perfect relaxation; hence they were very pronouncedly clonic. There was considerable opisthotonos. Each convulsion began with twitching of the muscles about the left corner of the mouth. As each attack came on, there was more or less of an outcry, as in epilepsy, and, as in that disease, some frothing was observable at the mouth. The pupils were markedly contracted. Respiration was extremely slow, and grew more so to the last. The action of the heart was not very noticeably disturbed. There was profuse perspiration. Decided diarrhœa came on within two hours. Death occurred just three hours after the fatal dose was taken, and was apparently due to failure of respiration and exhaustion. By way of counteracting the symptoms, half a grain in all of sulphate of morphia was used, and was given hypodermically. After using it, the convulsions did not occur so frequently, but their power was not lessened in the least. No chloral or anything besides the morphia was used.

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[1] Vide The Medical and Surgical Reporter, Jan. 14, 1882, for some very enthusiastic remarks on the subject by Dr. F. P. Henry, who had used it in a hundred cases.

[2] National Dispensatory, 2d ed., 1879.

[3] Vide London Med. Record, May, 1883, or N. Y. Medical Abstract, June, 1883.

MEDICAL PROGRESS.

TRISMUS AND TETANUS UTERINUS DURING LABOR.—From a number of cases observed, ROPER draws the following conclusions:

Trismus comes on at the beginning of labor; it comes on in premature labor when the cervix and the lower part of the uterus is not completely dilated.

It is generally associated with a vicious presentation. In some cases this vicious presentation is not rectified by uterine action, as the uterine body remains inert while the spasm of the cervix continues. Also, when trismus of the cervix is accompanied by uterine tetanus there is no tendency toward expulsion of the fœtus.

Although cervical trismus is not accompanied by uterine contraction, it is associated with a systemic weakness which tends to a fatal termination. It is not infrequently associated with placenta prævia. Roper has not found any efficacy in the proposed methods of treatment.—*L' Indipendente*, June 25, 1883.

TREATMENT OF EXTRA-UTERINE PREGNANCY.—The indications for treatment are: 1. To kill the fœtus. 2. To open the sac and remove the fœtus by ovariotomy. The fœtus may be destroyed by puncturing the sac by means of a trocar introduced through the abdominal wall or through the vagina, and the amniotic fluid removed; by puncturing the fœtus itself and killing it; by injecting morphine into the fœtus; or by electropuncture. For opening the sac, laparotomy should be performed with antiseptic precautions.—*L' Indipendente*, June 25, 1883.

PORRO-CÆSAREAN OPERATION.—PROF. MARTINO recently performed this operation on a rachitic woman. Strict antisepsis was employed, the operation resulting favorably for both mother and child.—*Revist. Clin. dell' Univ. di Napoli*, August, 1883.

PAINLESS TREATMENT OF CONDYLOMATA.—NUSSBAUM (*Münch. ärztl. Intell'bl.*, 1882) recommends the treatment of small condylomatous patches on the penis by daily washings with salt solution followed by the sprinkling over them of calomel powder. Chemical change takes place and corrosive sublimate is produced; the condylomata disappear, and no pain is felt. Solution of corrosive sublimate in collodion, which acts more quickly, gives rise to much pain, and requires the patient to rest in bed. The proposed method is not new, but has fallen into unmerited disuse.—*Practitioner*, October, 1883.

GASTROSTOMY IN CUBA.—On September 7th, DR. DON RAIMUNDO MENOCAL performed, at the Hospital San Felipe y Santiago, in Havana, gastrostomy on a man, æt. 60 years, for carcinomatous stricture of the œsophagus. The *Cronica Medico-Quirurgica*, Sept. 1883, in reporting the case, fails to say whether or not the patient recovered.

PRIAPISM IN LEUKÆMIA.—In a Hungarian medical journal, PROF. KÉTLI, of Buda-Pesth, has described a case of leukæmia, accompanied with priapism. A man, aged 35, was seized last October with a severe attack of paludal fever, followed by bronchitis; since that time, priapism had been present. At first, the erections occurred daily, lasting for several hours, and totally unaccompanied by subjective phenomena of any kind; but, for the last two weeks that the patient was under observation, priapism had been continuous, and very painful. The morbid condition was confined to the corpora cavernosa, the glans being perfectly unaffected; the urethra became so compressed by the swelling of the cavernous part of the organ, that the catheter had occasionally to be used. The spleen was enormously enlarged, and the proportion of colorless corpuscles in the blood was greatly increased. No enlargement of the lymphatic glands could be detected. Lupulin and bromide of potassium had been given as remedies for the priapism, but without effect, as might be supposed, since the symptom was related, more or less directly, to a constitutional affection that needed other treatment than the administration of sedatives. Prof. Kétli observes that Longuet describes a case of leukæmia, where priapism came on, and lasted for six weeks. Salzer found the same condition in five out of eight cases of leukæmia under his care. The true relation of the symptom and the constitutional disorder remains as yet unknown.—*Brit. Med. Journ.*, October 13, 1883.

TREATMENT OF THE PLACENTA AFTER BIRTH OF THE CHILD.—PROF. DOHRN sums up the comparative results to the woman, in cases in which the placenta was left to nature, spontaneously expelled, or treated by Credé's method.

1. In one thousand lying-in-women, in whom the expulsion of the placenta was left to nature, the results were far better than in one thousand others in whom Credé's method of expulsion was used.

2. The one thousand lying-in-women in whom the placenta was spontaneously expelled, had considerably less hemorrhage and fever after delivery. In those cases treated by Credé's method, portions of the membranes were frequently retained, and there were more fatal cases than in the others.

3. The disadvantages which are conditional to the method of Credé, are especially seen in the cases in which the placenta is expressed during the first five minutes. After a longer time the expression was more complete, but never as safe as by the spontaneous method.—*Deutsche med. Wochensch.*, Sept. 26, 1883.

MIDWIFERY FORCEPS LEVER.—DR. WILLIAM HENRY TAYLER describes a new instrument recently invented by him to aid in forceps delivery. It consists of a square block of wood, scalloped out on its under surface to make it fit well into the bed or mattress. In the centre of the block is a perpendicular lever, working in a ball-and-socket joint. To this lever is attached a leather strap with a ring, which works up and down the lever in circular grooves about one inch apart, according to the height required. To the other end of the leather strap is fixed a hook for attachment to the forceps. On one side of the block, that placed towards the foot of the bedstead, is attached another leather strap, with holes at intervals and a hook at the end. This strap is passed round the rail of the bedstead, and the hook inserted into one of the holes according to the length required, and keeping the block in the desired position.

Each handle of the forceps terminates in a flat ring, the two, when placed together, forming one ring, in which is inserted the hook on the strap attached to the lever; the forceps are also fitted with an improved catch, which easily and securely fastens them when locked.

In using this machine, the woman having been placed in the proper position, and the lever-block placed on the bed and fastened according to the distance required, and which can be readily shortened or lengthened, the forceps are introduced, locked, and fastened by the improved catch: then the hook of the strap attached to the lever being inserted within the ring on the handles of the forceps, the instrument is ready for use.

The accoucheur, sitting by the side of the bed, places one hand on the lever, and manipulates with the other to feel the gradual descent of the head, and so regulates the force of the lever, that the traction can be increased or lessened with the greatest nicety and precision, while the leather strap allows the head and forceps to rotate at will. The lever being fixed with a ball-and-socket joint, the extension can be made in any direction. As soon as the head has been brought sufficiently low down, the lever can be unhooked from the forceps, and the head brought through the vulva in the ordinary manner.

The advantages claimed for the midwifery forceps lever are—1, increase of power with less exertion; 2, it allows of the proper rotatory movements of the head; 3, it works on a level plane; 4, there is an easy graduation of the force employed; 5, it enables the accoucheur to work in a sitting comfortable position; 6, it can also be used for reducing dislocations.—*Brit. Med. Journ.*, Oct. 13, 1883.

TREATMENT OF PERINEAL RUPTURE BY IODOFORM.—BEHM, after nicely cleaning the perineal wound, dusts it over with iodoform powder, and then brings the edges together. A very small quantity of iodoform is used, in order that union may, if possible, take place by first intention, as has been the case in some of Behm's operations. After the edges of the wound are brought together, he uses a dressing containing iodoform, and covered by cere-cloth. By this means, the wound is protected from the vaginal discharges.—*Bull. Gén. de Thérap.*, Sept. 30, 1883.

MUSCULAR ATROPHY IN RHEUMATISM OF JOINTS.—DR. LUIGI PETRONE (*Lo Sperimentale*, May, 1883) has collected a few cases in which muscular atrophy accompanied or followed immediately upon rheumatic inflammation of the larger joints, especially of the shoulder and knee. The deltoid and triceps suffered especially. The atrophy showed itself about the beginning of the second week after the articular pain;

sometimes there seemed to him more loss of power than atrophy, sometimes the reverse. Similar muscular atrophy was noticed by M. Valtat after traumatic injury of the joints (*Archives générales*, 1879, p. 159); in some cases occurring more rapidly, even within twenty-four hours of the injury. This led Dr. Petrone to a series of experiments consisting in the artificial induction of acute synovitis in animals. He found, on post-mortem examination within ten or twelve days of the experiments, that the muscles in the neighborhood of the inflamed joint had lost ten to thirty per cent. of their weight. The nerves showed nothing abnormal. He does not pretend to determine the method of the influence of the joint affection on the surrounding muscles, but urges that the effects are too rapid to be explained either by the atrophy of disuse, or by Vulpian's hypothesis (*Leçons sur l'Appareil vasomoteur*, vol. ii.) that the irritation of the articular nerve produces an effect on the gray matter of the spinal cord which leads to the muscular atrophy.—*Practitioner*, October, 1883.

FISTULÆ OF THE URACHUS.—DR. S. HERMANN has observed two cases of fistula of the urachus at the polyclinic service of Prof. Baginsky at Berlin. In one case there was a fistulous opening one and a half inches wide leading into a suppurating tract. There was no communication with the bladder or the intestine. In the second case a small catheter could be passed into the bladder through an opening in the umbilicus, urine mixed with pus flowing out. Both cases recovered; the first spontaneously, the second after syringing with solution of thymol, cauterization with nitrate of silver, and lead-water cataplasms.—*Centralb. f. d. med. Wissensch.*, June 16, 1883.

INFLUENCE OF MALARIA ON PREGNANCY AND THE PUERPERAL STATE.—GOTH, of Klaussembourg, a very malarial place, has had very favorable opportunities for studying this subject. From his observations it seems that: 1. Pregnancy gives no immunity from malarial infection. 2. Malaria predisposes to abortion, and especially to premature labor: it causes premature labor (*a*) by the death of the fœtus, produced either by the high temperature of the mother, or by the direct action of the infecting principle on the fœtal organism; (*b*) by bringing on uterine contractions, MacRunge having demonstrated experimentally that an elevation of the temperature to 40° C. causes uterine contraction. As in all paludal affections and symptoms, quinine is the remedy to be relied on.—*L'Indipendente*, June 25, 1883.

HEREDITARY SHORT-SIGHTEDNESS.—Considerable attention has lately been paid in Germany and Switzerland to the question of the increase of myopia amongst school children and students generally. Dr. Cohn has, in a recent number of the *Gesundheit*, summarized various statistics on the question of hereditary short-sightedness, which have from time to time been collected by Erisman, Scheiding, Pflüger, and other authorities on the subject. The researches of the last-named writer resulted in the following facts being elucidated as to the percentage of short-sighted pupils: Public schools: Without predisposition, 8 per cent.; with predisposition, 19 per cent. Higher schools: Without predisposition, 17 per cent.; with predisposition, 26 per cent. The difference of about 10 per cent. in favor of those children without a hereditary predisposition to short-sightedness is, according to Pflüger's opinion, a reliable basis of argument. At the same time, he asserts that this relatively low figure is arrived at after the necessary elimination of those cases where the predisposition has remained latent, and where it is of such a nature as only to become the source of ocular affection under circumstances of an unfavorable character. The quoted opinions of oculists, such as Von Arlt, Kotelmann, Loring, Nicati, and Javal, vary from each other in the manner of regarding the question at issue. Those who acknowledge the existence of such a predisposition consider that its importance should not be over-estimated. The statistics published on the matter are regarded as hardly sufficiently conclusive to allow of a definite solution of the question at the present moment.—*Lancet*, October 13, 1883.

NUCLEATED RED CORPUSCLES IN ANÆMIA.—HAYEM (*Archives de Physiol.*, No. 3, 1883), like Cohnheim, Litten, Erb, and others, has found nucleated red corpuscles in the blood of six anæmic patients, two suffering from gastric cancer, one from pernicious anæmia, one from post-puerperal anæmia, and three from leukæmia. The nucleated corpuscles were always few (two or three in several thousand), and were not detected in fresh blood, but only after various methods of preparation. Some of them resembled fœtal blood-corpuscles, others were like the cellular elements of the fœtal bone-marrow or spleen-pulp.—*Practitioner*, October, 1883.

SPECULUM FOR UTERINE ELECTRIZATION.—M. Dujardin-Beaumetz has presented to the Académie de Médecine, for DR. DRISLER, the inventor, a speculum for uterine electrization. It is an ordinary cylindrical speculum, made of some non-conducting material, and furnished at the end with a metallic ring, which connects with a conducting stem, the latter passing out along a groove in the speculum. This stem terminates at the external end in a convenient handle, so as to render it easy of introduction, and a slot for the battery wire of one pole, the other pole being applied to the abdominal wall. Dr. Drisler has obtained good results with this instrument in various uterine neuroses, due either to abnormal nutrition or to irregularities of innervation. One of its chief advantages is that it is not necessary to withdraw the instrument in order to make applications, etc.—*Annales de Gynecol.*, July, 1883.

TREATMENT OF FRACTURE OF THE LARYNX.—DR. W. WAGNER, of Königshütte, points out (*Centralbl. f. Chir.*, No. 23, 1883) that fracture of the larynx is very rarely met with, and that not even the most experienced surgeons are in a position to derive from personal experience fixed rules for treating this injury. Most observers, however, agree that in such cases the first indication is the performing of tracheotomy in order to prevent suffocation. Occasionally, where there is much displacement of the fragments, it is advisable to perform thyrotomy.

A case is reported of multiple fracture of the larynx, which led the author to consider the subject of the treatment of this injury, and convinced him that further therapeutic measures were necessary beyond opening the trachea. The subject of this case was a robust and very powerful man, whose neck had been forcibly squeezed in a fight. He remained unconscious for about half an hour, and on recovering himself found that his breathing was very bad. On the following day, when the patient first came under the notice of Dr. Wagner, there was extreme dyspnœa; and, with coughing, much blood, partly fluid, partly coagulated, was brought up. The face, neck, and surface of the thorax were distended through emphysema. There was found to be free abnormal mobility of the left wing of the thyroid cartilage; and during the prompt performance of superior tracheotomy, the cricoid was found to be also fractured, and partly torn away from the upper ring of the trachea. The patient

did well up to the third day after the date of operation, when signs were presented of hypostatic pneumonia on the left side, and there was a complaint of acute pain beneath the sternum. On the evening of the fourth day, there was free bleeding from the wound in the trachea, and on the following day the patient died. On post-mortem examination, there was found to have been mediastinal emphysema and suppurative mediastinitis. The lungs, with the exception of the lower lobe on the right side, appeared quite healthy.

Dr. Wagner thinks now that in any similar case of laryngeal injury, thyrotomy would be indicated, not so much for the purpose of replacing any fragments of cartilage, as for rendering the seat of fracture antiseptic, and for maintaining for a time this antiseptic condition. In a recent case of this kind, he would, after having plugged the trachea, incise the larynx in the middle line, and then separate the two wings of the thyroid cartilage so as to be able to see the whole of the interior of the larynx, and to apply some antiseptic fluid. He would then plug the interior of the larynx with small pieces of iodoform gauze. The wound would thus be rendered antiseptic, the fragments of broken cartilage be kept at rest, and the risk of hemorrhage be diminished. If there be no longer any danger of infection, a late thyrotomy, it is held, is still justifiable if performed with the view of putting displaced fragments of cartilage in a better position, and, if the thyroid cartilage be fractured, of uniting the alæ by silver suture. If the fragments of the thyroid cartilage cannot be thus united, or if stenosis cannot be prevented, Dr. Wagner would advocate extirpation of the partially detached portion of thyroid cartilage, and even removal of half the larynx. In a case reported by Billroth in which this partial operation had been performed, a good voice was retained, and, at all events, the patient is thus placed in a better position than that of having to go through life with a completely useless and much obstructed larynx.—*London Med. Record*, October 15, 1883.

TREATMENT OF PUERPERAL ECLAMPSIA.—DR. CAMILLO FUERST, assistant to Prof. Braun, communicates to the *Wien. med. Blätter* for July 26 some therapeutical notes from his obstetric clinic in Vienna. In the treatment of eclampsia, the following rules are observed: 1. For the prevention of fresh attacks, chloral-hydrate is given in the dose of 2 grammes (30 grains) by the rectum immediately after each fit, and if the greater part be returned, it may be repeated to the extent of 10 to 12 grammes (150 to 180 grains) in twenty-four hours. 2. If fits occur during the birth, it must be terminated artificially. 3. If the birth be over or not yet begun, diaphoresis is induced by hot baths, beginning at 38° to 40° C. (100.4° to 104° F.), and gradually raised by the addition of hot water to 42° or 45° C. (107.6° to 113° F.). After half an hour of this bath, or sooner, if much sweating of the face be induced, the patient is packed in warm flannels for two or three hours, from which she is freed gradually. This is repeated daily until the œdema disappears; and the treatment has been specially useful in eclampsia occurring during pregnancy.—*London Med. Record*, October 15, 1883.

PHOSPHATE OF CODEIN.—The *Wien. med. Blätter* of August 16th, contains the mention of a new drug, the phosphate of codein, which has been prepared by Merck, of Darmstadt, under the directions of Professor Hegar, of Freiburg. It is intended for hypodermic injection, for which neither the sulphate nor the chlorate are suitable, being nearly insoluble in water. The new salt is soluble in four parts of water, and contains seventy per cent. of codein. It crystallizes in four-sided columns, and is similar to morphia in action, with the advantage of having less tendency to excite toxic symptoms. It is peculiarly suitable for sensitive patients.—*London Med. Record*, October 15, 1883.

TREATMENT OF SYPHILIS IN INFANTS AT THE BREAST.—DR. FERDINAND LINK (*Prager Med. Wochensch.*, Aug. 8, 1883) reports four pretty severe syphilitic cases, in children aged, respectively, ten weeks, four months, eight days, and nine weeks. All were out-door patients, whose parents belonged to the working-classes.

Their symptoms were of the usual kind—eruptions on different parts, ulcers and rhagades of the nose and lips, troublesome coryza, etc. Two of the cases, moreover, presented serious complications, in the shape of intestinal catarrh and stomatitis.

The only internal remedy employed was iodide of potassium, two grains of which were given to each of the mothers daily, without interruption, during periods varying respectively from fourteen days to eight weeks.

In every instance a complete cure was indisputably effected—either by the time the medicine was discontinued, or very shortly afterwards—no traces of the disease being left beyond a more or less pronounced discoloration of the affected integument.

The apprehended effect of the iodide in lessening the secretion of milk was not perceptible in either of the four cases. If any slight diminution actually took place, it certainly did not interfere with the success of the treatment.—*Journal of Cutan. and Ven. Diseases*, November, 1883.

ERGOT IN ENTERIC FEVER.—DR. DUBOUÉ, of Pau, in a recently published essay (Paris, G. Masson, 1883), points out that the prominent symptom in enteric fever is enfeeblement of the muscular tissues. This enfeeblement is present in greater or less degree from the very commencement of the fever, and increases with the progress of the disease. It affects the muscles of the limbs, giving rise to the lassitude which is so marked a feature of this fever. It affects also the muscular fibres of the cardio-vascular system, and in this fact lies its great importance. The heart becomes enfeebled, and the blood current becomes retarded; and hence arises congestion of the various vital organs with its more or less serious consequences—imperfect oxygenation of the blood, defective nutritive power, and the like. This being so, the main indication in the treatment of enteric fever consists, according to the author, in combating the muscular enfeeblement and the consequent retardation of the blood current. The other important indication, viz., the prevention of nutritive disorders, can only be attained by giving attention primarily to the cardio-vascular debility.

For the fulfilment of this primary indication various therapeutic agents are useful, viz., the external or internal application of cold water, quinine, creasote, carbolic acid, the preparations of salicylic acid, ergot, etc., all of which act either directly or indirectly as excito-motors. While all of the agents enumerated are valuable for the end in view, the most valuable of all is ergot. Dr. Duboué has given this drug an extended trial, and the results he has attained have satisfied him of its extreme value. He has administered it with the happiest results in cases of enteric fever of the greatest gravity—in some even where the patient seemed *in extremis*. He believes that this remedy may cut short the fever even in its prodromal stage. Dr. Duboué insists on the necessity of the ergot being of good quality. If the drug be bad, as it too often is, it may give rise to sickness and other untoward symptoms; but if it be good no such symptoms occur, and the author has found that patients suffering from enteric

fever, as a rule, show a remarkable tolerance of the pure drug. The mean dose used has been from one gramme and fifty centigrammes to three grammes (about twenty-three grains to forty-six grains) daily for an adult, and from forty centigrammes to one gramme (about six grains to fifteen and a half grains) for children between six and twelve. The dose must, however, be varied according to the circumstances of each case. The administration of the drug should, according to the advice of the author, be continued until convalescence has been well established.—*London Med. Record*, October 15, 1883.

HYDRIODATE OF HYOSCIN IN PHTHISIS. — DR. FRAENTZEL recommends (*Wein. med. Blätter*, July 5) hydriodate of hyoscin in the treatment of the night-sweating of phthisis, in subcutaneous doses of half a milligramme ($\frac{1}{140}$ gr.), or in pill, beginning with the same dose. He does not find it so universally beneficial as atropine, and it sooner exhibits a narcotic action; but he has seen good results from it in cases where atropine has proved useless, or has failed to act after being in use for some time.—*London Med. Record*, October 15, 1883.

TETANY.—At the meeting of the Medical Society of Vienna on May 25, DR. N. WEISS communicated some interesting facts bearing on the nature of tetany. He had collected from German literature thirteen cases of tetany which had followed the operation for extirpation of a bronchocele. From the table which had been drawn up, it appeared that tetany had only been met with in cases of young women on whom total extirpation of the enlarged thyroid had been practised; that the nervous affection came on not later than ten days after the operation; that only eight of the cases showed signs of damage to the recurrent laryngeal nerve; and, finally, that five cases got well, seven died (two as a certain result of the tetany), and the remaining one still suffered from tetany three years after the operation. In three cases in which Dr. Weiss had the opportunity of performing a post-mortem examination, changes were detected in the gray matter of the anterior cornua of the cervical enlargement of the cord, and chiefly at the level of the fifth and sixth cervical nerves. The alterations observed were, briefly, swelling of the ganglion-cells, with lateral displacement of the nuclei, vacuolation of the cells, atrophy and shrinking of the protoplasm and cell processes. In the discussion which followed, Prof. Billroth contrasted and compared the characters of tetanus with those of tetany: he regarded the anatomical changes found microscopically in the gray matter of the cervical region of the spinal cord in tetany as probably of the nature of a direct continuation of the nutritional disturbance from the site of the operation. The proximity of the brain and spinal cord was an important factor, and it was not improbable that the neural changes occurred in all cases of removal of goitre, but it was suggested that they had to reach a certain degree of intensity before they could give rise to tetany. Prof. Rosenthal remarked that vacuolation could be by no means characteristic of tetany, seeing that vacuoles were described in connection with many nervous diseases.—*Wiener med. Woch.*, 22.—*Practitioner*, September, 1883.

THE MENTAL STATE IN CERTAIN DIABETICS.—There exist, in certain diabetics, moral troubles and intellectual peculiarities which enable the physician to diagnosticate the affection before there are other symptoms, and before the urine is examined. A young man becomes impotent, and tells it without shame, nor does he seem to regret it, but accepts the loss of his genital functions with resignation. This is significant, for hypochondriacal impotence is profoundly humiliating, and the person consults the physician several times a week; the diabetic on the contrary manifests, under these circumstances, a sort of indifference and relative optimism. At a more advanced period of the disease, when there is a greater quantity of sugar, the mental state of the diabetic undergoes modifications. He becomes melancholy, reserved, dejected, and speaks but little; he has parsimonious tendencies which become more developed day by day.

A man of the age of forty years, who, without appreciable cause and presenting no other mental trouble, becomes avaricious and thinks himself ruined, is very likely a diabetic. At a still more advanced stage of the disease when the pathological process has gone on for a considerable time, the diagnosis may still be made from the mental symptoms. The patient is lazy, continually wishes to rest, and is profoundly apathetic. Finally he falls into a state bordering on marasmus, and dies as frequently from some complication as from the disease itself.—*L'Abeille Médicale*, September 10, 1883.

ABSORPTION OF FAT IN THE SMALL INTESTINE.—M. ZAWARYKIN has recently been making experiments with a view to determining the question as to the digestion and absorption of fatty substances by the villi of the small intestine. From these experiments he concludes that there are lymphatic cellules of the solitary follicular glands of the intestine, which, traversing the epithelial cells, seize upon the globules of fat and, passing them into the blood or chyle vessels, return charged with fat, bringing back also the fat from the intestine into the general circulation. These changes may be seen by examining the intestinal villosities at different periods of digestion. If the examiner causes osmic acid to act on the preparation, he will see that certain lymphatic cells, placed between the epithelial cells of the villus, contain fat. Some of them contain fat only in one part of their protoplasmic substance. Then, in other preparations one may see the fatty lymphatic cells accumulated between the subvillous connective tissue and the villus itself. M. Zawarykin also states that the lymphatic cells, by their amœboid movement, cause the fat to pass into the intestine, thence to be carried into the general circulation. This hypothesis is very seducing, but needs supplementary proof in order to be adopted. — *Revue Scientifique*, Oct. 13, 1883.

LABFERMENT—RENNET-FERMENT. — BAGINSKY has been recently studying the subject of ferments, and particularly one which he calls Labferment (rennet-ferment). He finds this ferment in the juice of certain vegetables, as has been stated by Würtz, in artichoke flowers, in fig-juice, and in the aqueous extract of the Carica papaya. This last is the most active.

The small intestine of the calf seems to contain a ferment. If a small quantity of the intestinal mucous membrane be digested in the presence of hydrochloric acid, and the liquor then filtered and neutralized, a few drops of it will almost instantly coagulate milk. The hydrochloric extract seems to be more active than the alkaline extract. The best temperature for the action of this ferment seems to be between 35° and 50° C.

Putrefaction does not seem to alter the ferment so as to cause it to become ammoniacal or strongly alkaline. Trypsin appears to destroy the ferment rapidly; but, contrary to the opinion of Roberts, there is none of this ferment in pancreatic juice.—*Revue Scientifique*, October 13, 1883.

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THE TOXIC EFFECTS OF JEQUIRITY.

Now that so much is said on all sides in regard to the effects of jequirity in the treatment of trachoma, as demonstrated first by Wecker, it is desirable to know something of its action when introduced into the system. This important investigation has been made by MM. CORNIL and BERLIOZ, and their paper, giving an account of their studies, was presented to the Académie des Sciences in September last.

The effects of jequirity depend on the presence of an organism—a microbe or bacterium. This organism excites a local inflammation of considerable violence, due, doubtless, to its growth and development in the tissue to which it is applied. Jequirity also contains a crystallizable principle, but this appears to be devoid of toxic activity, since it produced no appreciable result when administered to animals. That the bacteria constitute the active agent, was proved by filtration of the infusion by the method of Gautier, for then it is found no longer to excite the active inflammation and the systemic disturbance produced by the unfiltered preparation.

For the purpose of the inquiry undertaken by them, MM. Cornil and Berlioz operated with an infusion of jequirity so prepared and preserved in flasks as to prevent the admission of germs from the air in the usual mode of preparing infusions for such purposes. It preserved its activity for several weeks. In the first series of experiments, they injected the infusion into the subcutaneous connective tissue of rabbits and guinea pigs. All died within thirty-six to sixty hours, having œdema of the skin, bacteria in the peritoneal cavity with slight peritonitis, ecchymoses of the stomachal mucous membrane, and very considerable tumefaction of Peyer's patches. In these animals, however, such a state of these glands, similar to that of human typhoid, occurs in many infectious diseases.

In another series of experiments, the same infusion injected into the peritoneal and pleural cavities caused death in from twenty-four to forty-eight hours. Intense inflammation of the serous membranes was produced, and the fluid in these cavities was cloudy, filled with pus globules, with bacteria in the form of rods and spores, and shreds of false membrane, free and attached. The lymphatic glands and Peyer's patches were usually tumefied, and the lungs on the side corresponding to that in which the injection was made presented points of congestion and broncho-pneumonia. Besides these lesions, in many of the autopsies made, the liver presented on the surface yellowish-gray patches, and, on section, the same color with a certain amount of opacity. This appearance was found to be due to the presence of the rod-shaped organisms of jequirity.

Sections of these made after hardening in alcohol, and colored with methyl-violet, and examined with Verick's immersion No. 10, exhibited the following characters:

At the periphery of some of the hepatic lobules, an interlobular branch of the vena porta is filled by a fibrinous clot containing in its meshes numerous bacilli characteristic of jequirity. A similar thrombus may stop the circulation in a part of a hepatic lobule, and in some of the patches a portion of the interlobular capillaries contains either the bacilli in small numbers, with red and white blood corpuscles, or aggregations of bacilli, either as rods or as spores. The white corpuscles may be more or less altered—atrophied—and their protoplasm no longer visible. The hepatic cells in the yellowish-gray patches are pale; their nuclei altered in color or absent, and without actual fatty degeneration there exist, in the atrophied cells, pigment granules.

Frogs injected with an infusion of jequirity, either in the dorsal lymph-sac or in the peritoneum, die in twenty-four to forty-eight hours, presenting in the blood, connective tissue, and peritoneum notable quantities of bacteria.

These researches, as well as the clinical observations made by various ophthalmologists, indicate the remarkable powers of jequirity. In trachoma, as in the other chronic ophthalmic disorders for which this agent has been used, the therapeutical results are due to the predominating action of the remedy, and the substitution of the morbid process caused by it for the original affection.

The question of safety must not be overlooked.

Is there danger, under some circumstances, that the bacteria of jequirity enter the organism, and multiply in sufficient numbers to cause a septic state?

OVARIOTOMY AND HYSTERECTOMY IN THE ROYAL INFIRMARY OF EDINBURGH.

DURING the three years ending on the last day of May, 1883, as we learn from the *Edinburgh Medical Journal*, for September and October, sixty-eight ordinary ovariotomies, ten hysterectomies for fibrous tumors, and one hysterectomy and double ovariotomy have been performed in the new Infirmary of Edinburgh, with a degree of success which, when the magnitude of some of the operations is considered, is simply marvellous. Of the 68 ordinary ovarian cases, 15, or 22 per cent., were free from adhesions, while 53, or 78 per cent., were more or less freely attached. 30 of the cases had been tapped from one to nine times before operation. Both ovaries were removed 8 times. In all the cases of hysterectomy, the ovaries were taken away, and they were enlarged or diseased in every instance.

In the simple ovariotomies, the pedicle was invariably dropped into the pelvis. The cautery was used fifty-five times for dividing the pedicle, the time required for that object having varied from five to eight minutes. The ligature was used only when the pedicle was very thin, or in those cases in which the tumor had to be enucleated from one or both broad ligaments. The extraperitoneal method was employed in all of the hysterectomies, with one exception. In the case of combined hysterectomy and double ovariotomy, the adhesions were universal, and ligatures and the clamp were resorted to.

Of the 79 cases, only 5 died. Of the 68 ordinary ovarian cases, 4 perished, one of rapid septicæmia and two of supposed carbolic acid intoxication, the cause being obscure in the fourth. All of the 8 double ovariotomies recovered. The 10 cases of hysterectomy for very large or bleeding fibroids, despite the fact that the operations were of the most severe kind, and that the weight of the tumors averaged over twenty pounds, were successful. The double hysterectomy and ovariotomy proved fatal.

The mortality appeared to be influenced by the use of the spray, which, as is well known, Mr. Keith has now abandoned. Thus, of 25 ovariotomies and hysterectomies, including the combined extirpation of the uterus and the ovaries, conducted under the spray, 4, or 16 per cent., died, while of 54 ovariotomies and hysterectomies without the spray, only 1, or 1.8 per cent., perished.

Of the 68 ovarian tumors, 2 were dermoid, 2 suppurating cysts, 1 was sarcomatous, 1 malignant, 1 solid, and 1 a gangrenous cyst, the remainder having been ordinary cysts.

In addition to the foregoing laparotomies, the uterus was twice successfully removed by the vagina, once for epithelioma, and once for inversion with a fibrous tumor embedded in its walls. The ovaries and tubes were removed twice, with one death, the operation having been performed under the carbolic spray; and a tubo-interstitial pregnancy was prevented from doing harm by abdominal section.

While the results of the ovariotomies were most brilliant, those of the more serious and more formidable operation of removal of the uterus are unequalled. The truth of this statement will become the more apparent upon comparing the successes here recorded with the results obtained by another accomplished surgeon. In a paper on the operative treatment of uterine fibromyomata, read at the recent meeting of the British Medical Association, and published in the *British Medical Journal*, for October 13th, Mr. KNOWSLEY THORNTON states that he has performed supravaginal hysterectomy 12 times with 5 deaths; and he attributes the large mortality to the fact that in the majority of these operations it is impossible to carry out strict antiseptic or aseptic surgery. We believe, however, that this opinion is erroneous. The hysterectomies of Keith were done without Listerism; those of Thornton with antiseptic precautions. The former saved all of his ten cases; the latter lost 41.66 per cent. of his patients. In nine of Keith's cases, the stump was treated extraperitoneally, and all of Thornton's managed in the same way recovered. Hence, we have a perfect right to assume that the extraperitoneal method of treating the stump, through which sepsis and hemorrhage are prevented, and not Listerism, is the true cause of Keith's successes; and we doubt not that if dropping of the pedicle be abandoned, future experience will show a much smaller death-rate than has hitherto attended the procedure.

THE PHYSIOLOGICAL ACTIONS OF IODOFORM.

As iodoform is now so largely employed in surgical practice, our readers will, doubtless, be interested in the elaborate study of its physiological effects conducted by DR. RUMMO, of Naples, in Vulpian's laboratory. The experiments were made on frogs, rabbits, Guinea pigs, and dogs, and the observations included the functions of circulation, of calorification, of respiration, of nutrition, and of the nervous system. It would be quite impracticable, in the space at our disposal, to do more than analyze the conclusions with which the paper ends.

Iodoform depresses the cardiac functions and slows the movements by lengthening the systolic contraction, and by prolonging the diastole, so that

the sphygmographic tracing bears some resemblance to that made under veratrine. Atropine does not affect the slowing of the heart caused by iodoform, but destruction of the medulla oblongata in the frog prevents this effect. Dilatation of the capillaries of the interdigital membrane first ensues, but a progressive contraction succeeds.

The respiratory movements are correspondingly affected. With large doses the respiration is at first accelerated, but afterwards slowed. The blood pressure falls with the diminution in the number of cardiac pulsations. In the dog, small doses of iodoform do not affect the temperature; medium doses raise the body-heat, but large doses cause a considerable decline.

Iodoform acts especially on the nervous centres, depressing the functions of the anatomical elements, but as the action continues, the peripheral nerves are at length affected, and finally the muscles. Motility is first impaired, then lost; sensibility declines somewhat, and the reflexes become less active.

Iodoform in the beginning of its action increases the secretions in general, and notably the salivary, the biliary, and gastro-intestinal. It is in part eliminated by the secretory organs, probably in part as an alkaline iodide (iodide of sodium?) and a small quantity passes out unchanged by the respiratory organs. Some small portion escapes by the urine, not enough, however, to explain the albuminuria and hæmaturia which result from the administration of large doses. The elimination begins in an hour after its ingestion, but it may be recognized in the urine, three days afterward.

Various morbid changes are found, the most important being a fatty degeneration of the organs, especially of the liver, a glomerulo-nephritis, and an acute anterior poliomyelitis. In these anatomical alterations, we recognize the community of effects produced by the mineral remedies. The most important practical point, however, is the action of iodoform on the bacteria of disease. It has a more decided germicide action than on the multiplication of spores. Iodoform dissolved in turpentine kills microbes in active reproduction—a practical fact which might be advantageously applied in surgical practice.

FAT CRYSTALS IN STOOLS IN CANCER OF THE PANCREAS.

IT is well known that more or less fatty stools frequently attend serious disease of the pancreas, and are often of diagnostic value. DR. FRANZ ZIEHL has, however, recently reported a case in the *Deutsche medizinische Wochenschrift* for Sept. 12th, in which the microscope showed that three-fourths of the stool-mass, which was of a silver-gray color, was composed of fat crystals. These were needle-shaped, partly isolated and partly in bundles. They were soluble in ether, and there remained after evaporating the ethereal solution an abundant fatty residue, out of which again crystallized a moderate number of spherical crystals, which reacted in the usual manner with osmic acid. The autopsy revealed primary cancer of the pancreas, with secondary cancer of the duodenum and stomach; ulceration of the latter with compression of the ductus choledochus and ductus hepaticus. There was general icterus.

Friedreich has described in Ziemssen's *Cyclopedia* two cases in which were the same silver-gray stools, and in which the microscope discovered crystalline fat. The important practical deduction to be made from these observations, is that we should not be satisfied with a simple ocular inspection of the stools in suspected pancreatic disease, since this crystalline fat may be present in large quantities, and give no distinctive features to the stools, while the microscope will readily discover the crystals.

It will be remembered that the ordinary macroscopic characters of fatty stools are at times a simple milkiness, at others the presence of greasy or butter-like, pale-yellow, and whitish masses of the size of a pea or larger, mixed with fecal matter. Or there may be, upon cooling, a pellicle of stiffened fat at the edge of the chamber vessel or surrounding the masses of fecal matter. In other cases still, there may be a fluid more closely resembling oil.

It is important to observe, also, that in all three of the cases referred to, there was jaundice due to obstruction of the hepatic duct. Alongside of this fact should be placed an announcement by Gerhardt, that in the pale, uncolored stools of a case of icterus were found large numbers of fat crystals. So soon as the stools again resumed their natural color by the admixture of bile, the crystals disappeared. From these facts the inference is legitimate, that it is the coincident absence of bile which causes the fat to assume the crystalline rather than the amorphous shape.

THE INDEX CATALOGUE

WE are receiving, from physicians who have purchased from the Public Printer the first three volumes of the Index Catalogue of the Library of the Surgeon-General's Office, complaints that they cannot obtain Vol. IV. in like manner, and therefore find it impossible to complete their sets.

It appears that of the first three volumes the Public Printer struck off a sufficient number of copies to supply the demand, selling them at two dollars per volume. When Volume IV. was ready for the press, he decided that he had no authority to strike off

extra copies for sale unless such copies were ordered *before* he began to print. This decision is in accordance with the letter of the law, which is as follows:

"If any person desiring extra copies of any document printed at the Government Printing Office by authority of law shall, previous to its being put to press, notify the Congressional Printer of the number of copies wanted, and shall pay to him, in advance, the estimated cost thereof, and ten per centum thereon, the Congressional Printer may, under the direction of the Joint Committee on Public Printing, furnish the same." (*Revised Statutes*, 1875. Sec. 3809.)

We should certainly have supposed that there could be no objection, in regard to a series of volumes like those of the Catalogue, to considering an order for the first volume as equivalent to an order for the whole work, but the Public Printer has decided otherwise. Under these circumstances, what is to be done? The very limited number of copies (1500) printed for distribution by the Surgeon-General is quite insufficient to supply the demand, and of course no copies of Vol. IV. can be spared, since they are all required to complete the sets of those institutions which have received the previous volumes from this source. Fortunately, Vol. IV. has been stereotyped, so that extra copies can be printed at comparatively small cost, if Congress so directs. It appears to us, therefore, that the members of the profession in this country should request of Congress the passage of a joint resolution authorizing and directing the Public Printer to print a sufficient number of Vol. IV. and of all succeeding volumes of the Index Catalogue to meet all probable demands for purchase. This request should be urged both upon individual members and Senators by personal interviews or letters from their medical friends, and also by formal memorials from societies, addressed to Congress as a body.

Meanwhile, we understand that the first part of the manuscript for Vol. V. is about to be sent to the Public Printer, and it will probably be judicious for those who wish to purchase copies of it to send in their orders within the next month or two.

AEROTHERAPY.

AMONGST the novelties in therapeutics recently brought forward, is the application of compressed air in the form of a douche directed against some part of the body. The inhalation of compressed air is by no means a new expedient, but in the method proposed by DR. DUPONT (*Bulletin Général de Thérapeutique*, Sept. 30, 1883) a novel application is made of a well-known remedial measure.

For the air-douche, the compression of the air is carried to three atmospheres. A flexible tube connected with the gasometer and having attached, at its free extremity, a canula with an orifice of 8 to 10 millimetres in size, is the simple apparatus required. The jet of compressed air is directed against the surface, wholly bared, the patient lying recumbent. The effects are partly mechanical; partly dynamical. By the attrition of compressed air, percussion is made, the superficial tissues are forced to glide over those beneath, and the blood is displaced and turned in from the more superficial to the deeper vessels. Considerable cooling of the surface, followed by reaction which quickly reddens the skin, are the chief dynamical local effects. The sensations experienced by the patient are of an agreeable character—there is a general sense of well-being, combined with a warm glow of the whole surface.

The air-douche is recommended for the following conditions: For consumption, chlorosis, anæmia, obesity, and allied affections, with a view to increase the activity of the nutritive functions. In œdema, hydrarthrosis, ankylosis, and analagous diseases, to increase the circulation and promote absorption of effused fluids. In hysterical contractures, hyperæsthesia, and painful local muscular spasm.

With compressed air may be mixed carbonic acid gas to obtain the local anodyne effects of the latter, or anæsthetic or anodyne liquids to effect at the same time the results of pulverization of fluids. Apart from such adjuvant effects, the application of the compressed air-douche must be regarded as an efficient mode of massage.

THE RESULTS OF THE GERMAN CHOLERA COMMISSION.

No official report of the results of the investigations made in Egypt by the German Cholera Commission, under the direction of Dr. Koch, has, as yet, been made. But it is announced, that in addition to numerous micro-organisms found in the cholera dejecta, which seem to have no relation to the disease, a special form of bacillus has been found in the walls of the intestine which corresponds in size and shape more closely with the bacillus of glanders than with any other bacillus.

Further investigation and experimentation in Egypt having been rendered impossible by the disappearance of the disease, Koch asked permission to extend the labors of the Commission into India. The request has been granted, and we may expect soon to learn more concerning this special bacillus.

THE report of Acting Assistant Surgeon Main, published in another column, shows what might be an alarming condition of affairs in Mexico, were it earlier in the season, but, as cold weather will soon be upon us, no apprehension of further spread of yellow fever into the United States need now be felt.

REVIEWS.

THE ROLLER-BANDAGE. By WILLIAM BARTON HOPKINS, Assistant Demonstrator of Surgery in the University of Pennsylvania, etc. 12mo. pp. 95. Philadelphia: J. B. Lippincott & Co., 1883.

THIS little work begins with a description of the roller-bandage, and gives some concise and definite information respecting its material and manufacture, and also the general methods of its application. The different bandages in general use are then described, and illustrated by drawings taken from photographs, the same bandage, in many cases, being shown at different stages of its application. By this means, a very original set of drawings has been produced, which, if carefully studied, will give the reader the essential points in the application of the various bandages. The drawings are certainly more accurate than the stereotyped plates generally seen in works of this nature; but their execution is so bad that they do much to mar the general appearance of the work, which in other respects is very satisfactory. The author's modification of the third roller of Desault (Fig. 33) presents, so far as we can see, no advantages over the original.

The directions for the application of the bandages are clearly and carefully given, and we do not doubt that the work will be of great service to students who desire to make themselves familiar with this most important class of surgical dressings.

SOCIETY PROCEEDINGS.

CINCINNATI ACADEMY OF MEDICINE.

Stated Meeting, October 22, 1883.

THE PRESIDENT, W. W. SEELY, M.D., IN THE CHAIR.

THE TREATMENT OF EMPYEMA BY PLEURAL INCISION; OPERATION ON THE SEVENTEENTH DAY; REPORT OF CASES.

The discussion on this subject was opened by DR. JOSEPH RANSOHOFF, who reported three cases, in two of which he had operated successfully.

The first case was a youth aged twenty years, the son of healthy parents, in whom, after five days' illness with symptoms indicative of acute lobar pneumonia, including bronchial breathing, increased vocal fremitus, an acute onset, and a percussion note not absolutely flat, a pleuritic effusion developed. During the two weeks that followed, the condition was unchanged. Then, however, symptoms of a graver character set in. The purulent character of the exudation was demonstrated by the hypodermic syringe, and on the seventeenth day of the disease an incision three inches in length was made in the seventh intercostal space, midway between the external margin of the scapula and the axillary line. Nearly two pints of creamy pus flowed from the wound. Permanent irrigation with borated water was at once established by means of a double siphon, and continued for six hours. Then the tubes were cut three inches from the wound, and iodoform dressing applied. During several succeeding days, the patient suffered from severe pain and a most persistent cough, unaffected by morphia, and alleviated only by the irrigation. The tubes were removed, and all pain and cough ceased, showing that these symptoms had been due to pleural irritation by the tubes. The cavity was now irrigated daily until the water came away at each time free from pus, and the iodoform dressing was reapplied. Two complications, however, arose: On the fourth day erysipelas developed and travelled down the back to the nates. Incisions had to be made to evacuate accumulations of pus, and these were followed by fistulous openings or gangrenous sloughs. The second complication was iodoform poisoning, in the form of nocturnal maniacal attacks. These subsided promptly upon the substitution of boracic acid for the iodoform dressing. Notwithstanding all this the recovery was rapid and complete, the opening into the pleural cavity being entirely closed at the fourth week.

The second case was that of W. B., æt. 26, whose father died of heart disease, and his mother of pulmonary hemorrhage. On the 19th of March he was prostrated by a chill, followed by symptoms recognized by his physicians as those of pleurisy with effusion into the right side. Two weeks before admission to the Good Samaritan Hospital he had another rigor followed by sharp fever. When admitted early in May, owing to the urgency of the case, Dr. Whittaker, whose patient he was, removed about a pint of purulent fluid, when the needle became blocked up. The case was operated upon and treated in the same manner as the previous one, and in one month there remained only a small fistulous opening, which in another month had entirely closed.

The third case was less fortunate. The patient was suffering from phthisis, and had an enormous effusion on the left side, displacing the heart to the right of the sternum. Aspiration, removing fifty ounces of serous fluid, the last of which was turbid, gave but slight temporary relief, and was followed on the third day by pneumothorax; ascites developed. Tapping had to be resorted to every two or three weeks during the next five months. During this time, however, the fistulous opening in the lung closed. The pleural cavity was opened and the case was conducted as the two previous; but little effect was produced. The heart remained fixed in its abnormal position; the cough and dyspnœa persisted and the patient died on the fifth day of exhaustion.

From these and other cases within his experience, the speaker drew the following conclusions: Leaving out of consideration the empyemata of children, in whom the immunity from firm adhesions and the elasticity of the chest-walls are accountable for the good results, aspiration of purulent accumulations is rarely followed by permanent benefit. Aspiration is sometimes attended by danger, and deaths have followed it, even where the effusion was serous.

The presence of a tubercular basis for the empyema should not deter one from incising the pleura, unless both lungs are seriously implicated.

The principles on which pleural incision is performed and drainage obtained are analogous to those which guide us in dealing with a diseased joint. König, Bull, and the most recent French authority, M. Hache, do not consider the presence of phthisis a contraindication to the operation.

The speaker had been unable to find a case reported in which the operation was performed so early as the seventeenth day, as in the first of his cases. But the speedy recovery which followed this operation he believed was sufficient evidence of the propriety of early operative procedure.

The objects to be sought in all the operations that have been proposed are:

1. The free evacuation of the pus that is present, and a ready exit for that which is to be formed.

2. An opportunity for the expansion of the lung, and a total agglutination of pulmonary and parietal layers of the pleura. In recent empyema, a simple incision of the pleura is all that is required to insure the first object. The incision must be made on the dorsal side

of the axillary line, and not lower than the sixth or seventh intercostal space.

With regard to the after-treatment, if provision is made for the ready exit of the pus as quickly as it is formed, it is unimportant whether the pleural cavity be irrigated more than once, and that immediately after the operation, as König advises. One of the most successful operators, Dr. John G. Blake, of Boston, believes that injections are not at all required when the pus is perfectly pure. It is better, however, to irrigate often, in order to remove all pus and shreds of adventitious membrane. Carbolic acid solutions should not be employed, because of their toxic effects.

The second requisite is best secured by the early operation. If patients are not benefited by the incision, and if fistulous tracts remain, it is because the operation was too long delayed. When such fistulous openings remain, they are to be considered as indications of a permanently retracted condition of the lung, and nothing remains to be done but to assist Nature in adapting the chest-wall to the form of the retracted viscus by an extensive resection of several ribs.

DR. JONES reported a case in which pleuritic effusion supervened upon pneumonia in a youth of seventeen years. Three pints of serous fluid were removed by the aspirator, and relief was afforded for a few weeks. Three months later, however, the symptoms became so alarming that an incision was made in a manner similar to that reported by Dr. Ransohoff. Several relapses occurred, but the patient has improved greatly, and is now (five months after) apparently almost well.

DR. J. S. KROUSE reported the case of a man who had a pleuritic effusion into the right pleural sac, resulting from a fracture of the seventh rib. A quart of straw-colored fluid was drawn off by aspiration, and a speedy recovery ensued.

DR. J. T. WHITTAKER reported two additional cases similar to those of Dr. Ransohoff, which were operated upon by Dr. P. S. Conner, not present. In one of them the speaker had used the aspirator one night when the dyspnœa was so great as to demand immediate relief. The other had been previously operated upon. Both recovered. This operation, he said, really marks an epoch in the treatment of this disease. A few years ago it was customary to attempt relief only by aspiration. Cases were allowed to die from want of surgical treatment. He himself had had cases die, years ago, from amyloid disease, the result of an empyema. This is, however, by no means a new operation, as we have evidence that Hippocrates opened the pleural cavity and evacuated pus. It is strange that an operation attended by such remarkable results could have fallen later into such disrepute that some of the great surgeons of the time discountenanced it. Dupuytren discarded it, saying of it that he had rather die by the hand of God than by the hand of man. In our day the result is entirely different. Fatal cases uncomplicated by phthisis are exceedingly rare. The cases of idiopathic empyema, so called, form the great minority of cases. It is stated that ninety out of one hundred and twenty-one cases were phthisical; many of them afterwards died of phthisis. It is questionable whether a serous effusion into the pleural cavity ever goes on to the formation of pus without a background of pneumonia or tuberculosis. In still more advanced cases of tuberculosis, the individual has an effusion, not of serum or of pus, but of blood. The operation in one case of Dr. Ransohoff was notable for having been performed so early, but the belief now is in favor of early operation. "*Ubi pus, ibi incisio*," should prevail here as elsewhere.

The speaker was decidedly in favor of frequent irrigation of the pleural cavity after incision, and believed that the great cause for the operation having ever fallen into disrepute was the failure on the part of operators to carry out with sufficient zeal this after-treatment.

The speaker referred also to the value of examining the pleural or abscess sac with the finger to ascertain the condition of its walls. In old cases, with stiff walls, irrigation is an absolute necessity to remove the disintegrating fragments of tissue from the sac, and in very old cases it is advisable to use a sharp spoon or curette to secure their detachment. Experience has shown that this procedure is entirely unattended by danger, as from hemorrhage or otherwise. To secure easy adaptation of the pulmonary and parietal pleuræ, it may be necessary in very chronic cases to cut the ribs in two places, as recommended by Roser, or even to exsect the anterior thoracic wall, including the parietal pleura, and adapt the skin to the pulmonary pleura, as practised by Scheder. Early operations remove the necessity of such radical procedures, and are attended with much speedier obliteration of the pleural sac. In the speaker's opinion, the case should be put not only "where there is pus, there should be incision," but, also, "when there is pus, there should be incision."

DR. E. W. MITCHELL reported a case in which he had performed the operation, but without good result, the patient dying within a month afterwards. He attributed the result, however, to the impoverished condition of the patient, owing to intemperate habits, bad hygienic surroundings, and the impossibility of having the after-treatment well carried out.

DR. A. RAVOGLI spoke of the favorable results following aspiration as he had seen it performed in the hospitals of Rome. He also placed considerable importance on the method of Barelli for differentiating between serous and purulent effusions, by means of changes in the vocal resonance.

DR. S. NICKLES objected to the view that aspiration could be relied upon for cure, even in simple cases with serous effusion. He had seen fatal cases where the exudation was serous from first to last. Again, the diagnostic signs referred to by Dr. Ravogli are not to be relied upon. Where the symptoms are severe from the start, and especially when following an acute disease like scarlet fever, the probabilities are that the exudation will be purulent.

In a case of empyema following scarlatina, the speaker made a very free incision, introduced a tube and in a few weeks recovery was complete. In another case, a number of years ago, he was undecided as to the character of the fluid until hectic fever appeared, it not being the custom to make an exploratory puncture in those days. Then he made an incision, and the case recovered without washing out the cavity. He does not think irrigation essential, but it may hasten the recovery. It is questionable whether serous fluid should be removed early, unless it is so great in quantity as to cause alarming dyspnœa.

DR. J. S. CLEVELAND spoke of the cases he had seen in hospital practice, in which the incision was made by means of the trocar. The results were very fatal. In one case where a permanent fistula followed the puncture, recovery occurred, but no lesson was drawn from it.

DR. W. H. WENNING reported the case of a young man (æt. 23) belonging to a tuberculous family, in whom aspiration relieved a serous effusion for six months. Then the procedure had to be repeated, and the fluid was decidedly purulent. During the six months that have elapsed since the second aspiration there has been no return of the trouble.

DR. RANSOHOFF, in closing the discussion, agreed with the speakers who opposed the view that single aspiration is sufficient for a cure in cases of serous exudation. In his own experience it almost never proved successful. Again, it is not without danger, for pneumo-

thorax not infrequently follows it. He does not consider Barelli's sign of any value. It is very strange that Billroth should say that no benefit has been derived from this operation. The character of the operation should be determined by the length of time that the case has existed and the degree of thickening that has occurred in the pleura. In old cases with very thick pleura, it is useless to trust to simple incision. It is then sometimes necessary to remove a rib or two, as König has recommended; but it is better not to trephine, as Langenbeck advises. The large opening made by the removal of several ribs becomes necessary in severe cases, in order that a portion of the thickened pleura may be removed with the sharp spoon.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

Stated Meeting, Thursday Evening, Sept. 27, 1883.

THE PRESIDENT, JAMES TYSON, M.D., IN THE CHAIR.

DR. SEILER presented a specimen of

POSTERIOR NASAL HYPERTROPHY IN SITU, TOGETHER WITH AN EXOSTOSIS FROM THE VOMER.

The anatomical relation of the parts on the right side of the nasal cavity was perfectly normal.

When, however, this partition was removed, a very marked enlargement of the posterior end of the lower turbinated bone on the left side was noticed, which proved to be a posterior hypertrophy.

On the left surface of the vomer a projection was also seen, which proved to be an exostosis, the existence of which, in nasal disease, is denied by some authors. The tumor-like projection into the nasal cavity consists of a hypertrophy of the erectile tissue underlying the nasal mucous membrane.

Its presence is due to a long-continued catarrhal inflammation which, by the infiltration of its inflammatory products into this cavernous tissue has distended the venous sinuses, and has increased the thickness of the connective-tissue walls of the caverns, so that when they are empty of blood a perceptible swelling or tumor still remains, as is seen in the specimen.

The reason why these hypertrophies occur more frequently at the anterior or posterior ends of the lower turbinated bones, must be looked for in the fact that the blood, favored by gravitation, distends the caverns of the erectile tissue more easily under the excitement of local irritation in these localities, and that the anterior as well as the posterior ends of the lower turbinated bones, forming the entrance to the in- or outgoing air current, are more liable to irritation by irritants contained in the respired air than any other portion of the nasal cavity.

DR. O'HARA asked what was the pathological condition generally found in hay fever, and was it due to a local nasal condition or to some constitutional influence.

DR. SEILER said that, of late, great interest had been taken in the pathology of hay fever, particularly in its relation to the pathological condition of the nasal cavities, and that great success had attended certain methods of treatment. In hay fever there is general hypertrophy of the mucous membrane of all the turbinated bones and septum nasi. The membrane is thickened and puffed up, thus occluding the nasal cavities. The inhalation of impure air, dust, etc., will produce irritation and cause asthmatic attacks. The pressure exerted by foreign growths or hypertrophied normal tissue in the nares also causes asthmatic symptoms.

As regards the possibility of cure, we may say that all sufferers from hay fever invariably have hypertrophic nasal catarrh, and if you, during the winter, remove the hypertrophied tissue the hay fever will not return during the summer. This removal is done either with a dentaldrill or the cautery knife.

He did not believe it to be due to rotten grains, as the worst cases occur in travelling, from coal-dust, etc. The disease is due chiefly to the hypertrophies. Sometimes the attack comes on frequently, and lasts only a very short time, the patient in the mean time being well. He had seen a number of such cases. In one case a young lady was attacked at every menstrual period, the disease lasting a half-hour. There was every symptom present: sneezing, watering of the eyes, running and clogging up of nose, difficulty in breathing, etc. In another instance, a gentleman had the same kind of seizures, but they were accompanied with intense pain in the nose. By surgical means, he succeeded in relieving him very much. Instead of one attack in three or four days, he has had but one in four months. These cases show how localized hypertrophies can produce spasmodic attacks.

DR. MUSSER asked if obstruction of anterior nares would give rise to as marked symptoms as if the disease was localized further back. He has a case of exostosis of one side which has given rise to no special spasmodic symptoms as yet.

DR. SEILER said that the anterior end of the nares is not at all sensitive, and the septum of the nose may be deflected at this point without producing symptoms other than those caused by the occlusion of the cavity. The middle and posterior parts are very sensitive. This can readily be demonstrated by the passage of a probe. Where there are marked spasmodic symptoms the middle and posterior tracts will usually be found to be affected.

DR. J. T. ESKRIDGE presented specimens of

MALIGNANT GROWTHS OF THE STOMACH AND OVARIES,

with the following history:

Mrs. A., æt. 32 years, married, born in Germany, had done hard service-work all her life. She had had two children, both living and healthy, three and two years old respectively. Her husband was a drunken, dissipated fellow. Her children were born at term. Neither she nor they presented any evidence of syphilis. She had had no abortions. Her confinements had been normal. After the first she remained in bed ten days, but after the last only five, as she was compelled to go out washing to earn bread for herself and children. Until her last confinement she had always felt well, and weighed, two years ago, one hundred and forty pounds; but soon after the birth of the child she began to lose flesh and strength. So far as she knew, none of her relatives had suffered from cancer or tuberculosis. In the latter part of the year 1882, she fell on her stomach and hurt herself considerably. Soon after the accident her abdomen became painful and began to swell. In March, 1883, she was admitted to the Episcopal Hospital. She remained in that hospital several weeks, and during her stay there her abdomen was twice tapped, a large quantity of a straw-colored serous fluid having been drawn off each time. She entered the Hospital of the Jefferson Medical College, very much emaciated, July 1, 1883. Dr. Getchell twice drew off large quantities of fluid similar in appearance to that obtained from her while she was in the Episcopal Hospital. She came under my care July 17th. She was very weak, and her appetite was poor, but her stomach was tolerant, and had been so during her entire illness. Her abdomen was greatly distended, and slightly painful to palpation. No nodules could be felt in any portion of the abdominal cavity. No heart or lung trouble was detected. The urine was normal in appearance and quantity. The temperature over

the abdomen was a little higher than in the axillæ, in each of which it was 99.4°. A few days later, about three gallons of a yellowish serous fluid were drawn from the abdominal cavity. After the operation the abdomen was flaccid and tolerant of manipulation. A tumor just below the ensiform cartilage of the sternum was felt. It was thought to be connected with the stomach. A tumor, much larger on the right side than on the left, was observed in each ovarian region. The liver and spleen presented, so far as I was able to detect, no evidence of disease in these organs. Occasionally she was troubled by diarrhœa. She grew weaker, and her abdomen more tender. She died from asthenia, August 1, 1883. Her stomach remained tolerant to the last. From July 27th to August 1st, her temperature ranged from 100.4° to 102°. She was treated mainly with anodyne and supportive measures. Anti-syphilitic treatment was at one time employed, but without any improvement.

Sectio Cadaveris (twenty-one hours after death).—Body greatly emaciated, the adipose tissue being almost completely absorbed. Parietal layer of peritoneum thickened, opaque, and quite firmly attached to abdominal muscles. Its internal surface is very rough, and presents a rugose appearance almost as well-marked as the mucous membrane of a healthy stomach. The rugosed surface is made up of layers of firmly adherent lymph, and is studded throughout with deposits of pigment. The peritoneal cavity contains about one and a half gallons of a straw-colored serous fluid. Bowels are distended with gas, and variegated externally by deposits of old lymph. Stomach is distended with fluid. It is very small, capacity not more than a pint. It is firmly bound to all adjacent structures by bands of old and recent adhesions. Externally it presents the appearance and feel of an old cystic kidney. Its length is about eight inches; greatest breadth three inches. The walls of the pyloric two-thirds of the stomach vary from three-fourths of an inch to one-quarter in thickness, the calibre of this portion not being more than one and a half inches in diameter. The mucous surface is smoother than normal, and anæmic in appearance. While the growth encircles the stomach at its pyloric end (two-thirds), its thickest portion is along the lesser curvature. The walls at the cardiac end of the stomach are thinner than normal, easily torn, and present several ecchymotic spots. The pyloric orifice is greatly dilated, and admits of all the fingers of one hand being passed up to their second joint.

The calibre of the upper portion of the duodenum is two or three times larger than normal. The walls of the bowel at this point are thickened, but the thickening does not extend more than two or three inches, when the bowel resumes its normal appearance. General adhesions are found, binding together the greater and lesser bowels, but at no point are their calibres materially lessened. The caput coli is much enlarged, and its appendix is curled upon itself, presenting a snail-like appearance. Bladder healthy. Kidneys nearly normal in appearance. Spleen small, soft and pulpy. Liver slightly enlarged. The edges of incisions made in it are slightly prominent. The capsule is easily detached without tearing the hepatic substance. The interior of the organ is dark, pulpy, and very soft, being almost as easily torn with the finger as a healthy spleen. Gall-bladder is distended with a fluid similar in appearance to that found in the general peritoneal cavity. It also contains three angular stones about the size of a hickory nut.

A spherical growth, about five inches in diameter, is connected with the right ovary. About two-thirds of the tumor is formed by a cyst whose walls are about an eighth of an inch thick. The inner surface presents a cheesy appearance from broken-down exudated lymph. The contents of the cyst are a dark, muddy liquid. The remainder of the tumor is made up of a caseous-like substance, in which a cyst about the size of a walnut is found. Connected with the left ovary is an ovoidal growth, about three inches in length and two in breadth. The tumor is made up of a fibro-fatty substance. The womb is quite small, and apparently is not the seat of any disease.

The stomach seems to be the point of chief interest in the above case. The absence of nausea, vomiting, eructations, and other symptoms of gastric indigestion in a contracted stomach, the pyloric two-thirds of whose walls are infiltrated by a neoplastic growth, can be explained only, I think, by the presence of the enormous dilatation at the pyloric orifice. This condition of affairs permitted indigested food to pass from the stomach into the bowel readily. Gastric digestion was apparently almost *nil*, the fluids in the intestine performing their own function and that of the gastric juice.

It is probable that the growth in the stomach is secondary to those of the ovaries, and that the peritonitis followed by ascites was occasioned by the fall received eight months before the death of the patient.

THE PRESIDENT said that he had never seen a case of disease of the stomach with so much thickening of walls and contraction of the cavity combined with so much dilatation of the pyloric orifice.

DR. FORMAD said that, judging from the specimen, without a microscopic examination, he did not think there was any trace of cancer either in the ovaries or stomach. It looked more like a case of chronic fibroid gastritis. He has seen several cases of that kind. They are described and figured by Thierfelden in his *Pathological Atlas*. He also has in his possession a specimen of the affection. The ovaries also look fibrous, and malignant disease of the ovaries is usually sarcomatous. It would be interesting to know if there were any metastases, but it is not likely. In fibroid disease of the stomach the muscular coat is affected by fibroid changes, as is also the mucous coat.

DR. MUSSER thought that it would not be possible to say positively what the growth was, unless a microscopic examination was made. It resembled very much a case which he had reported to the Society some time ago. The disease in that instance was confined to the stomach.

DR. ESKRIDGE, in reply, said that after examining the specimen carefully he felt that he would not be justified in calling it either sarcoma or carcinoma, and so called it a "malignant growth." In reply to Dr. Formad's query as to whether there were any metastases, he said that there were none. He would like to ask Dr. Formad if, in the cases he referred to, there was intolerance of food. In this case there was an absence of vomiting, notwithstanding the extent of the disease.

DR. FORMAD said that he did not have the cases under his care clinically.

THE PRESIDENT said that in one of his cases, with all the symptoms of cancer of the stomach, post-mortem examination showed what was called fibroid thickening by one pathologist, but which Dr. Formad and himself regarded as cylindrical epithelioma.

The specimen was referred to the Committee on Morbid Growths for examination.

DR. DE SCHWEINITZ exhibited, for Dr. J. Ashhurst, Jr., specimens of

CYSTO-SARCOMA OF THE FEMALE BREAST,

with the following history: Bridget C., æt. 38, single, was admitted to the University Hospital during August of this year. She is a blonde, moderately anæmic from menorrhagia, with a sallow complexion, and in

poor general health. Suffered with constant flatulent dyspepsia and headaches. Father died of phthisis; mother, living and healthy; two brothers alive and in good health; and of three sisters, two are healthy and one, younger than the patient, suffers with chronic gastric disturbance, probably some form of dyspepsia. No family history of carcinoma or tumor of any kind could be obtained.

In February, 1883, she first noticed a commencing lump in her left breast. This gradually increased in size, the growth being painless until the following March, when she began to suffer intermittent pain of lancinating character, and the tumor's growth became more rapid. She applied for treatment, and on August 9th Dr. Ashhurst removed the breast; the patient making a good recovery. No history of previous inflammation in or injury to the breast was obtained. Microscopically the nipple is seen to be healthy, though small, and the skin is freely movable over the surface of the tumor. Upon section it will be noted that the growth is filled with cysts varying in size from a pigeon's egg to some as small as split peas. The cut surface shows clefts of a more or less parallel or concentric arrangement, sometimes intercommunicating and giving the mass a characteristic appearance which Virchow has compared to the divided head of a cabbage. These cysts, at the time of the operation, contained a dark-colored, viscid, mucus-like fluid, while some of the smaller cavities were filled with a cheesy material, composed of degenerated epithelial cells. The interior of the cyst-cavities are smooth but irregular, being pushed up here and there by papillary excrescences of their walls. Macroscopically the tumor is one of the forms of *cysto-sarcoma* of the breast. Microscopic examination of the growth shows it to be composed of several forms of tissue. In the main, it is made up of fibrous tissue, sometimes loose and wavy, but more often well felted together or even so densely packed as almost to approach homogeneity. The acini are enlarged. The excretory ducts are dilated, lined with cuboidal or cylindrical epithelium which is frequently luxuriantly hyperplastic. Scattered through the fibrous matrix are round and some small spindle-cells, which, in the neighborhood of the lactic ducts, are more numerous, and simulate sarcomatous tissue. The cyst-walls are composed of fibrous tissue and lined with epithelium. The origin of these cysts is of course to be found in the altered excretory ducts. The rather rapid growth of the tumor, and the papillary excrescences into the lactiferous ducts would seem to indicate that this tumor belongs to the class cysto-sarcoma mucosum; but minute examination fails to show the presence of mucoid tissue. Its considerable hardness and dense fibrous structure, however, classify it more properly as a *cysto-sarcoma fibrosum* or a fibroma intracanaliculare papillare mammæ of Virchow's classification.

DR. DE SCHWEINITZ also exhibited specimens of

RECURRENT SCIRRHUS OF THE MALE BREAST,

taken from the person of Moses W., æt. 60, a native of Ireland, and at the time of operation an in-patient in the University Hospital. He was of dark complexion, had a somewhat cachectic look, of bilious constitution, and rather melancholic temperament. His family consisted of ten members. Father and mother died in old age; of his brothers and sisters he had little knowledge, but, as far as he knew, none of them ever suffered with carcinoma in any form. Four and a half years ago, a small kernel appeared beneath his left nipple. Gradually the nipple retracted, and the tumor slowly increased in size, until, at the end of a year and ten months, its dimensions were those of an orange. He then applied for treatment and a Belfast surgeon removed the growth. Eight months later the growth began to recur in loco, the first nodule appearing in the scar at the point where a stitch was passed in the approximation of the wound. During August of this year, he came to the University Hospital, and Prof. Ashhurst removed the secondary growth and also some enlarged axillary glands, which the patient claims were present at the time of the original operation. The patient denied any injury or inflammatory trouble in his breast previous to the appearance of the original tumor. He also denied that this breast had been larger than its fellow, or that it had ever secreted milk. Macroscopically the growth is seen to be composed of two portions, the one, larger, is a fibrous mass, rising above the level of the epidermis, brownish-red in color on the surface, and yellowish-white within, and of moderate consistence. The skin in the immediate neighborhood at the time of operation was of a dusky hue. The other and smaller portion, is a nodule situated beneath the skin in the subcutaneous connective tissue, and is of similar color and consistence. A section under the microscope shows a connective-tissue framework, composed of round and oval alveoli, and scattered through it some spindle and round cells. These alveoli are quite closely packed with polymorphous epithelium, but chiefly of a spheroidal type. Much yellow elastic tissue is present in all sections. The skin in the neighborhood of the larger mass is involved in the carcinomatous process. The tumor is an ordinary scirrhus or spheroidal-celled carcinoma.

It is needless to speak of the interest which attaches to carcinomata of the male breast and of their infrequency of occurrence when compared with similar growths in the female mammary gland. I need only refer to Prof. S. W. Gross' interesting exhibit and remarks upon this subject in this Society's *Transactions*, vol. vi. I have mentioned that the tumor recurred at the point where a stitch was passed. It is permissible to speculate whether, if the surgeon's knife had removed a larger area of skin, this local recurrence would have been prevented or at least delayed. It would not be an uninteresting study to make sections of the edges of flaps that are about to be approximated after the removal of malignant growths, and note whether any morbid manifestations would present themselves, ready to be lighted up in active growth by any irritation, as in this instance by the passage of a suture. At all events this may serve the purpose of another warning that all incisions for such purpose should be carried as far into healthy tissue as is possible.

DR. W. E. HUGHES presented some specimens from a case of

PHTHISIS WITH ABSENCE OF PARIETAL PERICARDIUM AND MALPOSITION OF LIVER,

with the following clinical history: C. L., white, æt. 33, was admitted to the University Hospital, July 21, 1882. He had been previously in the Philadelphia Hospital, under the care of Dr. E. T. Bruen. By occupation a carpet weaver, he had done of late years general laboring work, often much exposed to weather. He had been a moderate drinker and user of tobacco. There was a distinct history of asthma in the family both mother and maternal grandfather having been affected, but no phthisis. When eleven years old, he had pneumonia, and since then winter cough. Till three years before being seen he was well and strong, then the cough became continuous, and flesh and strength began to fail; a year afterwards dyspnœa developed; at first produced only by exertion, it soon became constant, and a most urgent symptom in the case. In the fifteenth month preceding admission to

the hospital, he had had two or three attacks of excruciating pain about the fifth interspace to the right of the sternum. The attacks would begin suddenly, last a few minutes, and disappear as suddenly as they came, leaving him completely exhausted. On admission to the hospital he was weak, somewhat emaciated, breathless, face sallow with a circumscribed flush on left cheek. Expression cheerful. Left pupil larger than right, both responded well to light. Cough constant, rather dry, some muco-purulent expectoration in the mornings, dyspnœa constant, with marked exacerbation on exertion. Appetite and digestion poor, bowels irregular. On the right side of the chest a distinct prominence reaching its greatest elevation at the fifth interspace, midway between the sternum and nipple. Over right chest poor movement with flattening at the apex. At the apex there were evidences of a cavity, while from the third rib to the base and from the sternum to the anterior axillary line (over the area of prominence just spoken of) there was flatness, with absence of vocal resonance and fremitus; posteriorly, dulness with mucous râles and scattered friction sounds.

On the left, resonance was impaired at the apex, and respiration blowing, elsewhere normal. The apex beat of the heart was in the fourth interspace, one-half inch outside of the left nipple. With the systole could be noticed a slight localized retraction of chest wall immediately inside the apex heat. Cardiac dulness extended from the right border of sternum two inches to the left of the sternum in the second interspace, two and a half inches in the third, and three and a half inches in the fourth. First sound weak and valvular. Second pulmonary sound accentuated and reduplicated. Liver dulness extended to the margin of the ribs anteriorly, continuous above with the flatness in the chest, posteriorly it was normal. A diagnosis of chronic plastic pleurisy, with consequent phthisis, was made, and the needle of an aspirator introduced about the middle of the area of flatness with negative results. The needle, as was shown after his death, must have punctured the liver. While in the hospital his condition remained much as it was on admission. A most interesting symptom was one connected with the pupils. They were usually unequal, sometimes the right, sometimes the left being the largest. When first seen the flush was limited to the cheek corresponding with the largest pupil.

March 15, 1883.—After a fall, he had a slight pulmonary hemorrhage and died in fifteen minutes, of apnœa, the heart continuing to beat after the respirations had ceased.

Autopsy (twelve hours after death).—The upper right lobe of the lung had been converted into a cavity with contracting walls. The upper part of the middle lobe had undergone marked fibroid change. The rest of the middle lobe and all of the lower were collapsed, congested, pushed back by the liver, which lay in front of them. The lung was universally adherent to the chest wall and diaphragm. The left lung had small masses of cheesy deposit at its apex, with the remaining substance healthy. It was less adherent than right. The heart was normal in size and position. The valves and great arteries were normal. What lends the case its chief interest was a complete absence of pericardial sac, the heart lying free in the left pleural cavity, its surface in contact with the left visceral pleura. Toward the apex there were a few fibrous bands connecting the heart with the lung and diaphragm (evidently the results of old pleurisy), while toward the base it was impossible to separate the heart and lung on account of the density of the adhesions. The serous covering of the heart was directly continuous with the visceral pleura. From the diaphragmatic pleura immediately beneath the heart was a fold of serous membrane one inch broad, three inches long, apparently an abortive attempt at the formation of a pericardial sac. No such formation could be demonstrated at the base, on account of adhesions between the heart and lung. The liver presented a curious departure from the normal position. The right lobe about its middle turned sharply upon itself, and, carrying the diaphragm with it, extended upward to the third rib. This accounted for the prominence and dulness in the chest before noted. The gall-bladder was carried with the liver, its fundus pointing upward. The left lobe was very small and was not carried up with the right. On section the liver showed a nutmeg appearance. The other organs were normal.

DR. EDWARDS said that the misplaced liver had been punctured several times by the attending physician, while he was his resident. The idea was to see if there was any accumulation of fluid at the place on the chest where resonance was absent.

DR. ESKRIDGE said that he had a case in which he thought the pericardium was incomplete, but he came to the conclusion that it was normal; the anterior layer of the pericardium having been removed along with the sternum, to which it was afterwards found attached.

DR. FORMAD said that he helped to make the autopsy, and was perfectly sure that the parietal layer was absent. On removal of sternum, the heart was visible. The parts were very carefully investigated. The heart was seen lying in the left pleural cavity. On looking up the literature, he found in Virchow's *Archives* three or four such cases recorded. In this case there was some anomaly of the diaphragm and displacement of the liver. There was a healed phthisical cavity at the top of the right lung, and it is possible that in healing the scar may have caused the retraction of the diaphragm and ascent of the liver.

DR. HUGHES.—There are cases on record of this anomaly. There was no adhesion of the two layers of the pericardium, or of the pericardium and pleuræ. The cicatricial contraction of the lung would hardly have been sufficient to draw the liver so far out of position.

DR. MUSSER had had two cases in which marked retraction of the chest-wall occurred at each heart-beat. In these cases there were no pericardial adhesions. Clinically, he regarded retraction of the chest-walls as of no value in the diagnosis of pericardial adhesions.

DR. SEILER asked if Dr. Formad considered that the lung disease was tuberculous.

DR. FORMAD replied that he considered it a case of fibroid phthisis.

DR. HUGHES said that there was some cheesy material in the left lung, but not in the right.

DR. WOODBURY said that he saw in the Pennsylvania Hospital, two cases of absence of a part of the pericardium. One was congenital and the other was due to inflammatory action. In the specimens presented this evening, there may have been inflammatory adhesions early in life, and later on rupture of these and of the pericardium.

DR. WM. G. MACCONNELL exhibited microscopic specimens from a case of

SPINDLE-CELLED SARCOMA OF THE RECTUM,

operated upon by Dr. Levis.

J. M., æt. 43 years, machinist, three years ago noticed pain, uneasiness, and tenesmus of the rectum; was very constipated, and was compelled to resort to purgatives aided by enemata to secure an evacuation. Bleeding rarely occurred and was then due to the passage of hardened feces. Two years ago he was laid up with an inflammatory attack, as he said, in the neighborhood of the rectum, accompanied with at-

tacks of retention of urine lasting for two to three days, which have recurred from time to time until the operation. At the end of the second year he first noticed a tumor, about the size of a walnut, which was detected by the patient's finger within the rectum. He habitually passed his finger through the anus to relieve the tenesmus, etc. The tumor was hard and steadily increased, until at the time of operation it was of the size of a fœtal head. It was globular, nodulated, and sessile. By bearing down he could protrude the tumor, when the parts presented the appearances of the fœtal head when distending the vulva. The tumor was soft and elastic, weighing nearly one and one-half pounds, and on microscopic examination proved to be a small spindle-celled sarcoma.

NEWS ITEMS.

CINCINNATI.

(From our Special Correspondent.)

THE RELATION OF PHYSICIANS AND DRUGGISTS.—The committees appointed by the Academy of Medicine, the Cincinnati Medical Society, and the Pharmaceutical Society, held a joint meeting on the 26th of September, to consider and, if possible, rectify the charges made against the druggists. The charges were: illegal prescribing, the advertising of patent medicines, the repetition of prescriptions without the physicians' order, and the substitution of other drugs for those prescribed. Others might have been added. The druggists based their defence upon the flimsy counter-charge that the physicians too often prescribe proprietary articles and sugar-coated pills. This was a feeble charge, because the profits on these proprietary goods and sugar-coated pills are so fair that the druggists aid the manufacturers in advertising, and it is but a few days since prescription blanks specifying a certain make of pills were distributed to the physicians by the retail druggists. A committee was appointed to draft rules to govern (?) both physicians and druggists.

THE HEALTH OF CINCINNATI still remains remarkably good. There were but sixty-eight deaths during the week ending October 27th, a rate of 12.29 per thousand of the population per annum. The report further states that twenty-one were "*infants* under five years of age."

YELLOW FEVER IN MEXICO.—Acting Assistant Surgeon Main, stationed at Brownsville, Texas, in a report to Surgeon-General Hamilton, under date of October 16, states that "Matamoras, Mexico, still continues a twenty day quarantine against Havana, but has reduced it to eight days against Vera Cruz. Tampico and Tuxham have adopted the same regulation." He says: "there is no yellow fever north of Vera Cruz on the gulf coast, and that it has disappeared as an epidemic at Vera Cruz; though a few sporadic cases of a non-malignant type occur in the city. Tabasco, Campeche, and Progresso continue to be nests for its propagation, and that Vera Cruz and latitudes south are the zones of its hibernation." He learns "that the fever has been much more fatal at Culiacan than previously reported on the 8th of October, the average mortality being three daily up to the 1st of October, and nine daily since that date. Less care seems to have been taken to prevent its propagation than was observed at other points of invasion, and the consequence is that the fever has spread through some twenty villages which lie between that city and the mountains. In like manner it has spread with rapidity northward, dealing death to the Indians. There is constant travel and traffic from these points to the frontier of Arizona and Upper California by land, and steamship navigation on the Gulf of California to the Colorado River (which empties its waters into the Gulf of California), thence to Fort Yuma on the Gila River, carries the disease northward. Some cases of fever of an unknown type (?) have already been reported in Arizona as having occurred among some travellers from the affected districts further south.

"At Mazatlan the fever still exists. Great complaint is made by the press against the doctors, and the nurses are said to be incompetent. At La Paz no provision whatever was made for the fever, notwithstanding a timely warning of the approaching danger was given, and the consequence is that the fever is spreading to the interior towns of Lower California on both east and west coasts (the State being a peninsula), and thus the fever may make its way by both coasts to San Diego, in upper California. At Mazatlan, where the same indifference was manifested, there had been, up to the 8th of October, 521 deaths from yellow fever; at that date the disease was rapidly diminishing, doubtless for lack of material. The fever still exists at Presidio and Concordia in the State of Linaloa, with an average mortality of three deaths daily for the past ninety days. In the State of Jalisco, the towns of Coraco and Gualian have suffered greatly, and it is reported that three thousand had fallen victims to the disease, with a mortality of three hundred and eighty-one in ninety-two days. Here, also, the fever is slowly but steadily decreasing. At the last-named place, the garrison consisted of 600 soldiers, 150 of whom died of yellow fever; and an opera company of 31 members lost 25 by death. Out of eight doctors, two died. In Manzanello and Mazatlan the fever is rapidly disappearing, as is also the case at points south of these two cities. It is north and west that the disease is travelling, and there is danger of its creeping into Arizona and Upper California, where the great system of railways which here begin to network the country may carry it into the east like a prairie fire." Dr. Main concludes his report of the devastating disease in Mexico by saying, "Few Mexican papers reach the frontier, very few people read them, and fewer still reach or are read or understood in the United States."

SANITARY INSPECTION OF PASSENGER TRAINS.—Sanitary Inspector M. F. Price, stationed at Yuma, A. T., reports for the week ending October 20th, that he had "thoroughly inspected all west-bound trains carrying passengers, and that he found neither sick nor persons from points infected with yellow fever."

Sanitary Inspector W. E. Chesley, stationed at Benson, A. T., reports for the week ending October 20th, that no passengers had arrived from Mexico during the past three days, via. the N. M. & A. R. R.

The quarantines established at Yuma and Benson, Arizona, were raised on the 29th of October, and the Sanitary Inspectors relieved from duty on the 30th.

PUBLIC HEALTH IN RIO JANEIRO.—Consular reports from Rio Janeiro, state that but two deaths from yellow fever occurred in Rio during the week ending September 22d. There were forty-one deaths from smallpox, and forty from pulmonary consumption for the same period. Fifty-one cases of smallpox and ten deaths, occurred at Colombo during the month of September.

SANITARY INSPECTION AT HAVANA.—Sanitary Inspector Burgess at Havana reports, for the week ending

October 20, that bills of health were furnished vessels bound for United States ports after inspection by him as follows: Am. schr. "E. P. Church," for Key West; Brit. str. "Pensher," for Boston; Spanish str. "Castilla," for New Orleans; Spanish str. "Ana de Sala," for Savannah; Brit. str. "Monkseaton," for New York; Am. str. "Saratoga," for New York; Am. schr. "A. Kingsland," for Key West; Spanish bk, "Nueva Lantaro," for New Orleans; Am. str. "City of Pueblo," for New York. Of the above vessels, four only required disinfection, as the others were all clean, and remained in open bay, and did not approach the wharf. The Spanish bk. "Nueva Lantaro," bound for New Orleans, was forty-five days in port, twenty of them discharging at a suspicious wharf. While there, two of her crew had yellow fever, recovered, and sailed with the vessel. There were eighteen deaths from yellow fever at Havana during the week.

THE SANITARY CORDON AT PENSACOLA NAVY YARD, ordered to be discontinued on the 25th October, was continued until the 1st November, at the urgent request of the Board of Health of Pensacola, seconded by the commanding officer of the yard.

SANITARY INSPECTION AT VERA CRUZ.—Sanitary Inspector Mainegra, in his weekly abstract of bills of health, issued at Vera Cruz, for the week ending Oct. 10th, shows that he inspected the following named vessels bound to U. S. ports. Strs.: "E. M. Sidbury," bound for New Orleans; "Explorer," for New Orleans; "City of Pueblo," for New York. All were found to be in good sanitary condition.

THE APPOINTMENT OF SURGEON-GENERAL OF THE ARMY.—The delay in making the appointment to fill the vacancy created by the death of Surgeon-General Crane is said to be due to the extraordinary pressure being brought to bear on the President and the Secretary of War in the interests of the different candidates for the office. It is expected, however, that the vacancy will be filled during the present week.

CHOLERA IN EGYPT.—The reappearance of cholera has revived the panic among the people in Alexandria, and the passengers on vessels from European ports are returning without landing. The fatal cases occur chiefly among the Europeans. Twelve deaths from the disease in Alexandria were reported on the 27th, and six on the 28th, of October. The disease has appeared at Mecca.

THE PASTEUR MISSION, sent to Egypt to study the cholera, left for France on October 2d.

THE KOCH MISSION.—It is stated that the Koch Mission, in its report on the cholera, has decided that the disease was imported into Egypt.

AMERICAN PUBLIC HEALTH ASSOCIATION.—The Eleventh Annual Meeting of this Association will be held at Detroit, Mich., from November 13th to 17th.

The Executive Committee will have rooms at the Russell House, and will hold a session each morning and evening at 9 o'clock.

The main subjects for discussion will be upon Sanitary Science, Malaria, Adulteration of Food, Physical Exercise, Vital Statistics, and Diseases of Animals, and will probably be taken up in the order named. It is expected that there will be two or more papers upon each subject, and from the most eminent sanitarians and physicians in the country.

All papers intended for presentation at the meeting must be in the hands of the Secretary or the Chairman of the Local Committee (Dr. Wm. Brodie) by November 10th, and if any have failed to notify the Secretary, or to furnish a synopsis of such paper, they must do so immediately.

Among the papers expected are the following:

Malaria; the Status of the Germ Theory as to it. By Dr. George M. Sternberg, Surgeon, U. S. A.

Malaria; the Paludal View and its Status. By Dr. A. A. Woodhull, U. S. A.

Malaria. By D. W. C. Wade, Holly, Michigan.

House Drainage and Plumbing. By R. Hering, C. E.

The Regulation of Sanitary Plumbing. By Dr. Raymond, Board of Health, Brooklyn.

Overhead Ventilation of Drains and Sewers. By Dr. Oldright, President of the Provincial Board of Health, Ontario, Canada.

The Identification of Disease by Vital Facts. By Elisha Harris, M.D., Secretary of New York State Board of Health.

Vital Statistics. By A. L. Gihon, U. S. N.

Foods; their Adulteration and Preservation. By Prof. A. R. Leeds, M.D.

Laws as to Foods. By Wm. K. Newton, M.D., Paterson, N. J.

Physical Exercises and their Laws. By Prof. J. M. Watson, N. J.

Systems of Physical Training. By Prof. Sargent, Cambridge.

A Comparative Study of Texas Cattle Fever. By Dr. Salmon, Agricultural Department, Washington.

Animal Diseases. By Dr. Partridge, South Bend, Indiana.

Present Indications as to Vaccination. By Eugene Foster, M.D., Augusta, Ga.

The Massachusetts Coroner Law. By Dr. Abbott, Wakefield.

Health Boards, their Sphere and Methods. By Dr. J. T. Reeve, Wheeling, West Virginia.

These and other papers seem to promise a meeting of unusual interest, and will help to forward sanitary art, as well as contribute to the science.

A number of the western railroads have reduced their rates to members. Information concerning them can be obtained on application to W. K. Muir, Chairman of Transportation Committee, Detroit, Mich.

AN ENJOINED MEDICAL WORK.—Judges Hare, Mitchell, and Fell, on Saturday last, in the Court of Common Pleas of Philadelphia, after a brief argument refused to dissolve the injunction which, in August last, Judge Mitchell, on the complaint of Drs. D. Hayes Agnew and Alfred Stillé, issued against Dr. Samuel M. Miller, restraining him from publishing and selling a medical work containing an "Epitome of Medicine, Surgery, and Obstetrics." The complaint was that the matter contained in the book which the defendant has been selling is made up of a summary of the lectures which those professors have been delivering to their students in the University of Pennsylvania. On behalf of the defendant, it was argued that an oral delivery of matter to persons who attended on invitation or otherwise became common property to those who were present and remembered the subject discussed. He said that the students had never been notified that the lecturers reserved a right of property in their lectures; but, on the contrary, were directed to take copious notes of the lectures, and that the complainants had, in point of fact, corrected in proof various articles for medical publications, such articles having been made up of reports of their lectures. The Court heard no argument on behalf of the complainants, Judge Hare saying that there was not sufficient shown to induce the Court to dissolve the injunction.

WASHINGTON OBSTETRICAL AND GYNECOLOGICAL SOCIETY.—At the First Annual Meeting, held October 19, 1883, the following officers were elected for the ensuing year:

President.—Dr. S. C. Busey.

Vice-Presidents.—Drs. W. W. Johnston and J. Taber Johnson.

Recording Secretary.—Dr. C. H. A. Kleinschmidt.

Corresponding Secretary.—Dr. Samuel S. Adams.

Treasurer.—Dr. G. L. Magruder.

A NEW MEDICAL JOURNAL.—In response to the expressed desire for a weekly medical journal in Scotland, the first number of the *Edinburgh Clinical and Pathological Journal* was issued on the 13th inst. The journal is under the joint editorship of Drs. Graham Brown, Cathcart, and Berry Hart.

BEQUEST TO THE BRITISH MEDICAL ASSOCIATION.—The General Secretary of this Association has received from the executors of the late Dr. A. P. Stewart, the sum of £200, in augmentation of the Stewart Fund, which was founded by the lamented Dr. Stewart out of funds raised for the testimonial to him by public subcription. This is said to be the first legacy which has been left to the Association.

HONORS TO THUILLIER.—The French colony at Alexander, desirous of perpetuating the name LOUIS THUILLIER, has decided to erect a monument to his memory. A central committee of subscription has been formed at Alexandria, and sub-committees at Suez, Ismalia, Port Said, and Cairo.

PROFESSOR DU BOIS-REYMOND celebrated, on October 15th, his twenty-fifth year professorial jubilee. A bust of the learned professor was presented and a jubilee-volume of the *Archiv für Anatomie und Physiologie* was issued.

PROFESSOR JACCOUD.—By a Presidential decree from the Faculté de Médécine, of October 6th, Prof. Jaccoud has been transferred from the Chair of Internal Pathology to that of Clinical Medicine, made vacant by the death of Prof. Lasègue.

HEALTH IN MICHIGAN.—Reports to the State Board of Health, for the week ending October 20, 1883, indicate that dysentery, scarlet fever, tonsillitis, consumption, and influenza have increased, and that diarrhœa, remittent fever, cholera infantum, and neuralgia have decreased in area of prevalence.

Including reports by regular observers and by others, diphtheria was reported present during the week ending October 20, and since, at sixteen places; scarlet fever at twenty-four places, and measles at six places.

OBITUARY RECORD.—The death of PROF. DA COSTA ALVARENGA, formerly Minister of Public Instruction in Portugal, and author of several works on heart disease, is announced.

NOTES AND QUERIES.

A PROTEST AGAINST THE USE OF THE METRIC SYSTEM IN PRESCRIBING.

To the Editor of THE MEDICAL NEWS.

SIR: I desire to enter a protest against the use of the metric system of weights in practice, and of metric doses or prescriptions in communications to medical journals, with this one reservation or request, viz., if medical writers desire to show off their foreign education, let them put an English translation with their articles, so they will be easier to understand and require no time for translation by their American readers.

Now I submit these three points in regard to our own and the metric systems:

First. In calculating any given quantity of a drug desired in a prescription, it can be done quicker by our or the English weights —grs., ʒ, ℥, etc.

Second. There is less liability to err in writing the English, as a slight misplacement of a decimal would make a vast difference in the metric system. True, we are all liable to make mistakes, and many have been made under the old system, but a brief comparison will show any one that either druggist or physician is less liable to make any kind of mistake with the old method.

Third. It takes less time or space to write the old method.

I submit two or three prescriptions which are taken from a journal before me:

℞.—Arbutini, ... 10.0 grammes.
Aquæ dest., ... 100.0 " M.

Now how much quicker, with less liabillty to err, can our own method be written. Again—

℞		℞	
Morph. muriat., .	.0060 grm.	Chloroformi, . .	℥ij
Tinct. cannab. Ind.	.0800 "	Glycerinæ, . .	℥ij
Chloroformi, .	.1350 "	Alcohol., . . .	℥ij
Ol. menth. pip., .	.0025 "	Spt. menth. pip., .	℥ij
Tinct. capsici, .	.0025 "	Acid. hydrocyanici dil., . . .	℥ij
Acid. hydrocyanici dil., . .	.0170 "	Tinct. capsici. .	℥ij
Alcohol., . .	.3000 "	Morph. sulph., . .	grs. viij
Glycerinæ, . . .	.4570 "	Syr. simpl., . .	℥iij
	M.		M.

These two formulæ of anodynes are very much alike, and I am of the opinion that any American reader of your journal can take the one expressed in grains, drachms, and ounces, and find the amount of each, or any one, remedy contained in a given dose of the preparation, thus enabling him to alter the size of the prescription or any of its component parts, quicker express the terms, more briefly, with less liability to err, than he can with the other or metric prescription. These are reasons enough for a protest against the system, to say nothing of the great trouble and inconvenience of translating it by those of us educated in America.

Very respectfully,

JAMES ORR, M.D.

TERRELL, TEXAS, October 20, 1883.

SEPTIC FEVER.

To the Editor of THE MEDICAL NEWS.

SIR: The editorial on septic fever in a recent issue of THE MEDICAL NEWS reminded me that I had met some similar cases for which I was lacking a name. Scattered over the last four years I have had about a dozen or fifteen such patients, the major part of them being under my care during July and August of 1881. As a rule, but one member of a family was affected. In one instance, however, there were three patients in the same house. A boy, eight years old; the father, thirty-five; and a grandmother, age doubtful, but at least sixty-five. The latter recovered from the fever proper, but not from the exhaustion, dying some two months later.

The following is a fairly typical case. I was called, September 9, 1883, to see J. L. S., aged 33, a laborer in a saw-mill, dwelling-house close to a large pond of water, partially surrounded by a swamp. The pond filled with logs, some of which, with other debris, had been there for years. Water supply from a surface well in the immediate neighborhood. He complained of severe pains in the head, abdominal cramps, and aching of bones. Had indefinite chills for several hours. (In some instances the chill was very marked, followed by considerable fever with weak pulse, 112.) Slight diarrhœa—from two to four passages per diem, sometimes appearing tarry. In no other patient, however, was this latter noticed. By the third or fourth day the diarrhœa had ceased, and further movements of the bowels had to be induced by cathartics. Did not regularly take the temperature, but the highest recorded was 103°. The fever, virtually a continued one with slight irregular remissions, largely abated by the eighth day, though for a week longer he would occasionally have a return of it, lasting a few hours. The tongue during the first week was covered with a thick whitish fur; later, nearly clean. No tenderness over the abdomen; no eruption; no recurrence of the chill (an occasional exception in other cases); loss of appetite; not

much thirst. In most of the cases much prostration, the mind torpid and apathetic. A slow convalescence and gradual return of appetite. Average length of attendance about fifteen days. Of two fatal cases, one was the old lady above alluded to, the other a man of thirty-eight, complicated with pneumonia. These outbursts invariably occurred on low, marshy land. We have no typical malaria originating here, and our altitude (2250 ft.) precludes that possibility, yet in these cases one is insensibly led to feel that he is combating a morbific cause very similar to it.

So far as my experience goes, the town has been relatively free from epidemics. Located on the highest point of Cowno Mountain, exposed to stiff breezes the year through, infectious diseases would seem to have little chance for propagation. But along the water-courses large swamps abound, and during very dry weather the water is evaporated, leaving then a mass of decaying vegetation exposed to the direct rays of the sun. I cannot positively affirm that the emanations naturally arising under these conditions are responsible for the trouble; but the night-air, heavily laden with such noxious vapors, enveloping the *tired* and sleeping workman—it was generally such that were attacked—would thus find a favorable field for operation, and the fact that in a large community no cases were observed except in such connection, is strong corroborative evidence. Respectfully,

GEO. H. RHOADS, M.D.

TOBYHANNA, PA., October 24, 1883.

SCHOOL FOR FEEBLE-MINDED CHILDREN.

To the Editor of THE MEDICAL NEWS.

SIR: It is often a very difficult matter for doctors to advise parents what to do with more or less feeble-minded children, especially in the matter of education. If not placed in such an excellent institution as that at Media, I do not know any school where they can be taught, for it is impossible to teach them in ordinary schools with other children.

Lately, Miss Margaret Bancroft, of this city, has felt especial interest in this defective class, and if she can obtain a sufficient number of pupils, she proposes to establish a day-school for their education, giving them then, at the same time, the advantages of home-life.

Miss Bancroft has had many years' experience as a successful teacher, and she is known to me personally as a woman of the highest character, and is eminently fitted for just such a benevolent work. I am permitted also to use the names of Dr. Andrew Nebinger and Dr. J. Solis Cohen as additional references as to her fitness.

She proposes to have one teacher for every five scholars, so that each one shall have that individual attention necessary with such pupils. Any peculiar talent, no matter how slight, or any personal taste, will thus be used as an educational lever. The kindergarten system, so peculiarly fitted to develop the powers of such pupils, will be prominent in her school-work, and she is so fortunate as to have as an associate a graduate of Mrs. Van Kirk's well-known school for kindergartners.

Any one desirous of further information may address Miss Bancroft at No. 1007 South Twelfth Street, Philadelphia.

Very truly yours,

W. W. KEEN, M.D.

1729 CHESTNUT STREET, PHILADELPHIA, PA.,
October 26, 1883.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM OCTOBER 22 TO OCTOBER 29, 1883.

MOORE, JOHN, *Lieutenant-Colonel and Assistant Medical Purveyor.*—To be relieved from duty as Medical Director, Headquarters Department of the Columbia, to proceed to San Francisco, California, and assume charge of the medical purveying depot in that city.—*Par. 10, S. O. 243, A. G. O.*, October 24, 1883.

HORTON, S. M., *Major and Surgeon.*—Leave of absence for one month, with permission to apply for an extension of three months.—*Par. 6, S. O. 216, Department of the Missouri*, October 20, 1883.

WOLVERTON, WM. D., *Major and Surgeon.*—Granted leave of absence for one month.—*Par. 6, S. O. 201, Department of the East*, October 24, 1883.

BARNETT, RICHARDS, *Captain and Assistant Surgeon.*—Assigned to duty at Columbus Barracks, Columbus, Ohio.—*Par. 1, S. O. 240, A. G. O.*, October 20, 1883.

MANS, LOUIS M., *Captain and Assistant Surgeon.*—Assigned to duty at Fort A. Lincoln, D. T.—*Par. 4, S. O. 180, Department of Dakota*, October 15, 1883.

MERRILL, J. C., *Captain and Assistant Surgeon.*—Granted leave of absence for one month.—*Par. 7, S. O. 201, Department of the East*, October 24, 1883.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE UNITED STATES MARINE-HOSPITAL SERVICE, FROM JULY 1 TO SEPTEMBER 30, 1883.

BAILHACHE, P. H., *Surgeon.*—Detailed as member of Board to Examine Candidates for Promotion, August 23, 1883. Detailed as Surgeon-in-Charge, Cape Charles Quarantine Station, September 5, 1883.

MILLER, T. W., *Surgeon.*—Granted leave of absence for twenty-five days, August 31, 1883.

WYMAN, WALTER, *Surgeon.*—Detailed as member of Board to Examine Candidates for Promotion, August 23, 1883.

LONG, W. H., *Surgeon.*—Granted leave of absence for twenty days, September 25, 1883.

SMITH, HENRY, *Surgeon.*—Directed to take charge of Quarantine Service at the Capes, July 29, 1883.

STONER, G. W., *Passed Assistant Surgeon.*—Granted leave of absence for thirty days, August 24, 1883. To inspect the relief stations along the coast of Maine, September 29, 1883.

GOLDSBOROUGH, C. B., *Passed Assistant Surgeon.*—Granted leave of absence for thirty days, August 29, 1883.

BANKS, C. E., *Assistant Surgeon.*—Relieved from duty at Portland, Oregon, and to report to the Surgeon-General at Washington, July 10, 1883.

CARMICHAEL, D. A., *Assistant Surgeon.*—Granted leave of absence for ten days, August 31, 1883.

PECKHAM, C. T., *Assistant Surgeon.*—To proceed to Portland, Maine, for temporary duty, August 25, 1883.

DEVAN, S. C., *Assistant Surgeon.*—To proceed to Portland, Oregon, and assume charge of the Service, September 11, 1883.

KALLOCH, P. C., *Assistant Surgeon.*—To proceed to Philadelphia, Pa., for temporary duty, July 25, 1883. To rejoin his station (New York), July 31, 1883.

YEMANS, H. W., *Assistant Surgeon.*—Relieved from duty at Sitka, Alaska, and to proceed to Portland, Oregon, for temporary duty, July 10, 1883. To proceed to San Francisco, California, reporting for duty to Surgeon Vansant, September 11, 1883.

GLENNAN, A. H., *Assistant Surgeon.*—To remain at Norfolk, Va., until further orders, July 29, 1883.

WASDIN, EUGENE, *Assistant Surgeon.*—To proceed to New Orleans, La., for temporary duty, August 27, 1883. To proceed to Mobile, Ala., for temporary duty, August 27, 1883. To rejoin his station (New Orleans) as soon as practicable, September 25, 1883.

PROMOTIONS.

GUITERAS, JOHN, *Passed Assistant Surgeon.*—Promoted and appointed Passed Assistant Surgeon, by the Secretary of the Treasury, from September 1, 1883. August 31, 1883.

WHEELER, W. A., *Passed Assistant Surgeon.*—Promoted and appointed Passed Assistant Surgeon, by the Secretary of the Treasury, from September 1, 1883. August 31, 1883.

RESIGNATION.

O'CONNOR, F. J., *Assistant Surgeon.*—Resignation accepted by the Secretary of the Treasury, to take effect August 1, 1883. August 2, 1883.

APPOINTMENT.

WASDIN, EUGENE, M.D., of South Carolina, having passed the examination required by the Regulations, was appointed an Assistant Surgeon, by the Secretary of the Treasury, August 2, 1883.

THE MEDICAL NEWS *will be pleased to receive early intelligence of local events of general medical interest, or of matters which it is desirable to bring to the notice of the profession.*

Local papers containing reports or news items should be marked.

Letters, whether written for publication or private information, must be authenticated by the names and addresses of their writers—of course not necessarily for publication.

All communications relating to the editorial department of the NEWS *should be addressed to No. 1004 Walnut Street, Philadelphia.*